

New apseudomorph tanaidaceans (Crustacea: Peracarida: Tanaidacea) from eastern Australia: Apseudidae, Whiteleggiidae, Metapseudidae and Pagurapseudidae

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Abstract

Błażewicz-Paszkowycz, M., and Bamber, R. N. 2007 New apseudomorph tanaidaceans (Crustacea: Peracarida: Tanaidacea) from eastern Australia: Apseudidae, Whiteleggiidae, Metapseudidae and Pagurapseudidae. *Memoirs of Museum Victoria* 64: 107–148.

Investigation of apseudomorph tanaidacean material collected between 1979 and 1984 from Bass Strait and held in the collections of Museum Victoria, Melbourne, Australia, has revealed eight new species, five in Apseudidae (including one new genus), two in Metapseudidae (including one new genus) and one in Pagurapseudidae. These taxa are described below. The new apseudid genus *Annexos* shows great similarity to *Apseudes sensu stricto*, but is without an exopod on the cheliped or on pereopod 1. Two new species of *Apseudes* show a common feature of maxilliped spination in eastern Australian taxa; *Spinopsapseudes colobus* sp. nov., the second species of this genus, is described from a similar geography to the first, but is distinguished by the proportionately more compact articles of the antennular and antennal peduncles, the mandibular palp and the pereopods. *Pugiodactylus syntomos* sp. nov. is predominantly distinguished by having compact articles in the antenna, cheliped and pereopod 1; *Labraxseudes heliodiscus* gen. et sp. nov. (Metapseudidae) has a unique combination of substantial rostrum, exopodites on the cheliped and pereopod 1, compact antenna, short uropod, simple pereonite setation, compact propodi, dorsum of pereopod 1 basis without apophyses, robust cheliped and antennule peduncle without inner row of conspicuous denticulation; *Metapseudes wilsoni* sp. nov., only the second species of this genus to be discovered, is distinguished by its conspicuously more slender antennules and antennae with more pronounced, pointed denticulations on the proximal antennule peduncle article, and one fewer article in the main flagellum of the antennule; *Similipedia diarris* sp. nov., again the second species of this genus to be discovered, is distinguished by having no squama on the antenna, no rostrum, and dorsal spiniform apophyses rather than setae on the pereonites.

Keywords

Tanaidacea, Apseudomorpha, Australia, Bass Strait, *Annexos*, *Apseudes*, *Gollumudes*, *Spinopsapseudes*, *Pseudowhiteleggia*, *Pugiodactylus*, *Labraxseudes*, *Metapseudes*, *Similipedia*, *Whiteleggia*.

Introduction

Recent investigations of the Tanaidacea of Australia have discovered high diversity of this group of the Peracarida, including a relatively large number of previously undescribed species and genera (see Błażewicz-Paszkowycz and Bamber, 2007 for literature). Most recently, Guțu (2006), Błażewicz-Paszkowycz and Bamber (2007) and Bamber (in press) have described a number of new taxa from Eastern Australia, predominantly Moreton Bay, Brisbane, and Bass Strait.

Błażewicz-Paszkowycz and Bamber (2007) described, *inter alia*, parapseudid taxa collected during the period 1979–1984 within Bass Strait (see Wilson and Poore, 1987) over a wide depth range, and held in the collections of Museum Victoria, Melbourne. The present paper continues this work by describing further apseudomorph material from those and other collections held at the Museum, including eight new species, five in

Apseudidae (including one new genus), two in Metapseudidae (including one new genus) and one in Pagurapseudidae.

The type material and other studied materials are deposited at Museum Victoria (Melbourne, Australia).

Morphological terminology is as in Bamber and Shearer (2005) and Błażewicz-Paszkowycz and Bamber (2007), except that the plumose sensory setae commonly occurring on tanaidacean antennae and pereopod bases, *inter alia*, (“broom setae” *sens. auctt.*) are referred to as penicillate setae to be consistent with terminology in other crustacean groups (and because brooms have so many different shapes around the world); comb-rows of fine setules, occasionally present on maxillae and pereopod articles, *inter alia*, (e.g. fig. 24E) are referred to as microtrichia. Serially repetitive body-parts, such as the subdivisions of the antennal flagella and of the uropod rami are segments, while those with independent musculature (such as the

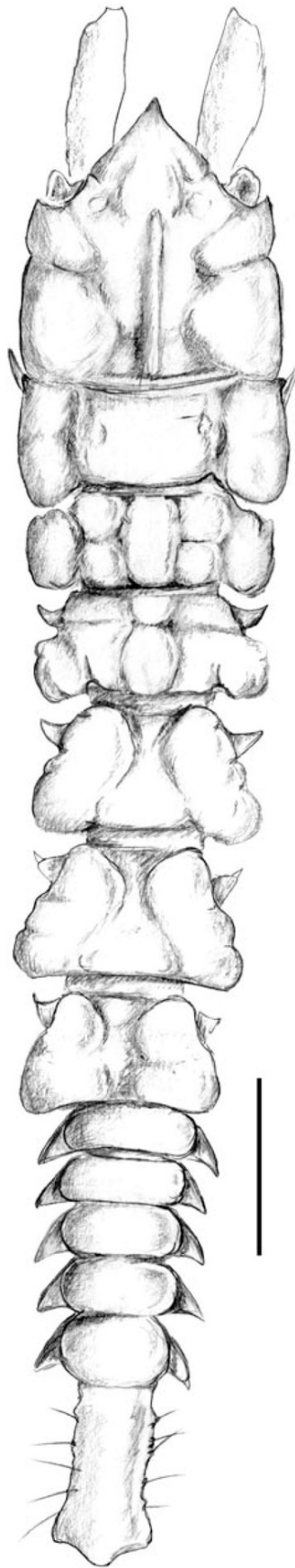


Figure 1. *Annexos abditospina* gen. et sp. nov., holotype female, dorsal. Scale line = 1mm.

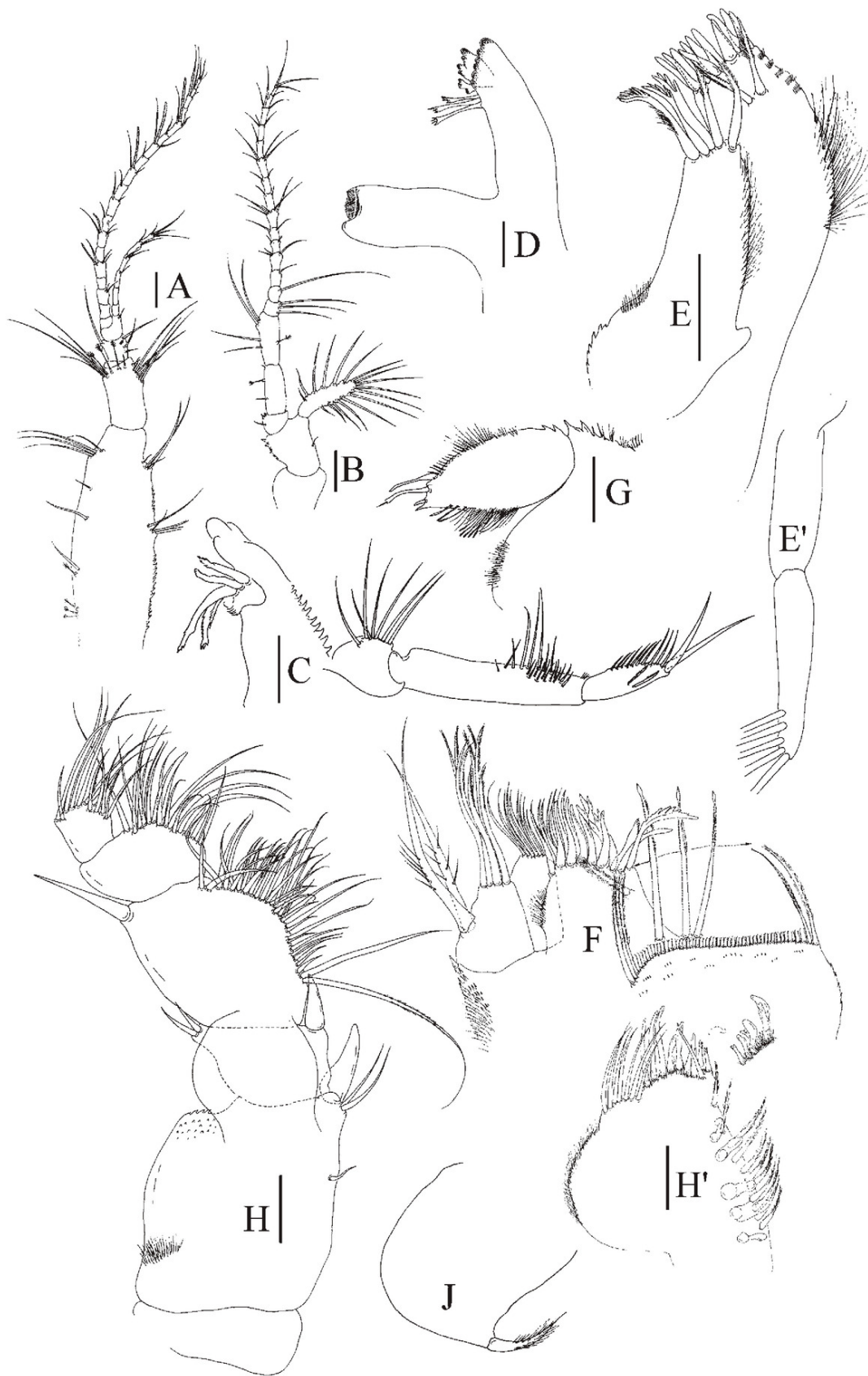


Figure 2. *Annexos abditospina* gen. et sp. nov., A, antennule; B, antenna; C, right mandible; D, left mandible; E, maxillule; F, maxilla; G, labium; H, maxilliped; H', maxilliped endite; J, epignath. Scale line = 0.1 mm.

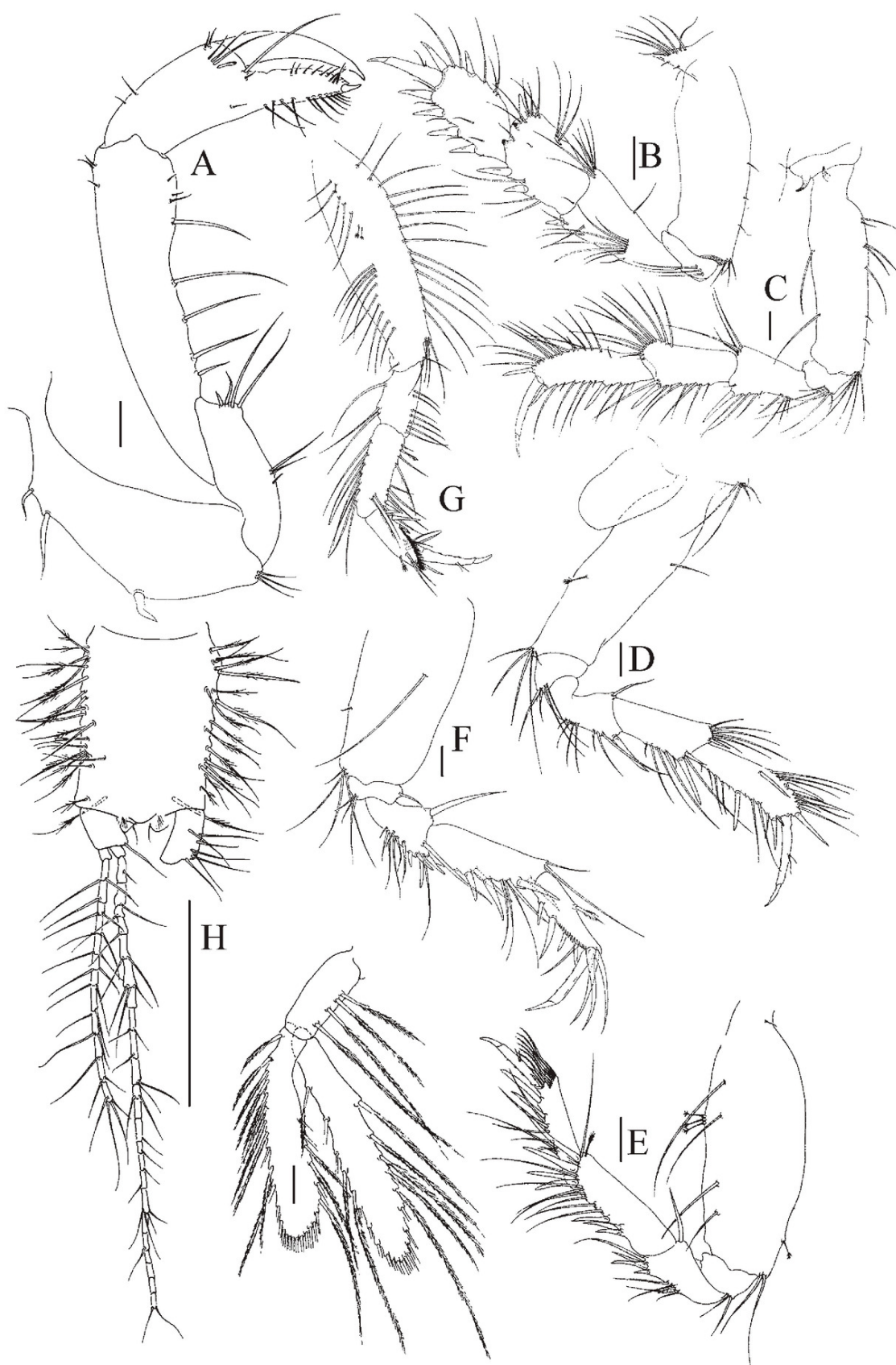


Figure 3. *Annexos abditospina* gen. et sp. nov., A, cheliped; B–G, pereopods 1–6 respectively; H, pleotelson and left uropod; I, pleopod. Scale line = 0.1mm.

parts of the pereopods) are articles. The term “spines” is used in the traditional (and etymologically correct) sense of rigid “thorn-like” structures (avoiding the contextual oxymoron “spiniform setae” *sensu* Watling, 1989) to distinguish them from the flexible “hair-like” setae; non-articulating spiniform extensions of the cuticle are mainly considered to be apophyses.

Measurements are made axially, dorsally on the body and antennae, laterally on pereopods.

Sex determination is confusing in apseudomorphs owing to the phenomenon of hermaphroditism at certain stages of particular species which retain rudimentary oostegites and genital cones at the same time (Drumm and Heard, studies in progress). It is not the purpose of this paper to solve the problem of apseudomorph hermaphroditism; therefore we simplified the question and unless the marsupium was fully developed (in case of the females) or secondary sexual characters were apparent (in case of the males) the sex determination was avoided. Consequently, the individuals with both rudimentary oostegites and with genital cone were called hermaphrodite.

Order **Tanaidacea** Dana, 1849

Suborder **Apseudomorpha** Sieg, 1980

Superfamily **Apseudoidea** Leach, 1814

Family **Apseudidae** Leach, 1814

Subfamily **Apseudinae** Leach, 1814

Remarks. The genus *Apseudes* has long been used as a convenient taxon in which to describe symmetrical, dorsoventrally-flattened apseudomorphs of a “standard” morphology with a spiniform apophysis on the coxa of pereopod-1, largely as it was the first apseudomorph genus to be named, preceding the next (*Parapseudes* Sars, 1882 and *Sphyrapus* Sars, 1882) by 68 years. It has long been recognised that *Apseudes sensu lato* is polyphyletic, and since 1970 a number of the (then) 60-odd species which accord with the above definition has been split off into new genera such as *Fageapseudes* Băcescu and Guțu, 1971, *Tuberapseudes* Băcescu and Guțu, 1971, *Atlantapseudes* Băcescu 1978, *Langapseudes* Băcescu 1987, and *Hoplomachus* Guțu, 2002. Guțu (2006) has recently undertaken a useful reanalysis of the formerly polyphyletic genus, restricting *Apseudes* and resurrecting *Apseudopsis* Norman, 1899, *inter alia*, affording a valuable basis from which, in Guțu’s own words, a more minute revision will be enabled in the future (for example by multivariate analysis).

With the discovery in the present material of 4 species of Apseudinae, their morphology has been compared with 58 specific taxa (as alluded to above) using a dataset based on 21 morphological features (where available), in an attempt to base generic diagnoses on overall morphology rather than biasing classification to that of individual characters (“Characters come from the genus, not the genus from the characters”: Linné, 1751). Having said that, the 1st taxon below shows sufficient distinction in 1 major character to support its separation to a new genus.

Genus ***Annexos*** gen. nov.

Diagnosis. Coxa of pereopod 1 with conspicuous spine-like apophysis. Rostrum triangular, cephalon without spines anterior to the branchial chamber; pereonites 3 to 6 with anterior spine-like apophyses; pleotelson longer than wide. Antennule with internal margin of proximal peduncle article finely corrugated; flagella multisegmented. Cheliped and pereopod 1 without exopodite. Pereopods 1 to 3 with proximal inner hooks on basis. 5 pairs of pleopods; uropods filiform and multi-segmented.

Etymology. Contrived from *an* – without, and *exopod*, the only character which removes this taxon from *Apseudes* being the absence of an exopod on the cheliped and on pereopod 1.

Type species. *Annexos abditospina* sp. nov. by original designation.

Gender. Feminine.

Remarks. This genus has close morphological similarity to the genus *Apseudes*, notably the approximately 16 species of *Apseudes* with anterolateral spiniform apophyses on the pereonites but no lateral spiniform apophysis anterior to the branchial chamber, including the type species *A. talpa* (Montagu, 1808) with its triangular rostrum and internal corrugation on the antennule peduncle. However, *Annexos* gen. nov. is entirely without exopodites on both the cheliped and pereopod 1, a feature differentiating the genus from all other Apseudinae. There are 3 genera within the Apseudinae which lack exopodites on only pereopod 1, viz. *Atlantapseudes* Băcescu, 1978, *Typhlapseudes* Beddard, 1886, and *Mendamanus* Bamber, 1998, but all have an exopodite on the cheliped. The genus *Fageapseudes* Băcescu and Guțu, 1971, lacks exopodites on both cheliped and pereopod 1 but this genus has recently been reclassified into Leviapseudinae (Bamber, 2007).

With only 1 species, it is difficult to decide which of the other features of this species might be generic characters. The proximal basal hooks on the pereopods are also found in *Apseudes atuini* Bamber, 2005, from southwestern Australia, although that species has these apophyses on pereopods 4 to 6 as well. The serrations on the body of the mandible, and the robust proximal spines on the maxilliped are distinctive, but *Apseudes bucospinosus* Guțu, 2006, from Heron I., Queensland, also has inner-distal “spiniform processes” on the basis and proximal palp article of the maxilliped (from which it derives its specific name), possibly analogous to the spines of the present species.

Annexos abditospina sp. nov.

Figures 1–3

Material. Brooding female, holotype (NMV J53137) Australia, Victoria, Eastern Bass Strait, 20 km SE of Port Albert (38°43.04'S, 144°18.02'E), 79 m, 18/11/1981, (BSS 178), Wilson, RS et al.

Paratypes: 20 hermaphrodites (NMV J55745), same locality as holotype; 1 specimen dissected on slides (NMV J55945), same locality as holotype; VIMS Cruise 81-T-1, NZOI RV *Tangaroa*, Stn 178, 20 km SE of Port Albert, Victoria, 38°43.4'S 146°56.9'E, 26 m depth, 18 Nov 1981; coll. R. Wilson; 3 individuals (NMV J55776), Tasmania, eastern Bass Strait, 20 km SSW of Babel I. (40°06.48'S, 148°24.18'E),

22 m, 14/11/1981 (BSS 166), R.S. Wilson; 1 individual (NMV J55777), Tasmania, central Bass Strait, 23 km E of Cape Rochon, Three Hummock I. (40°22.12'S, 145°17.00'E), 40 m, 03/11/1980, (BSS 112), M.F. Gomon and G.C.B. Poore; 5 hermaphrodites (NMV J55778), Victoria, eastern Bass Strait, 8 km S of South East Point, Wilsons Promontory (39°12.54'S, 146°27.18'E), 65 m, 18/11/1981, (BSS 180), R.S. Wilson; 1 individual (NMV J55779), eastern Bass Strait, 50 km SE of Port Albert (38°54.18'S, 147°13.24'E), 58 m, 18/11/1981, (BSS 176), R.S. Wilson; 1 ovigerous female, 2 hermaphrodites, 5 individuals (NMV J55780), eastern Bass Strait, 43 km SE of Port Albert (38°53.42'S, 147°06.30'E), 58 m, 18/11/1981, (BSS 177), R.S. Wilson.

Description of female. Body dorsoventrally flattened, elongate, holotype 9.2 mm long (tip of rostrum to posterior of pleotelson), 6 times as long as wide, narrower posteriorly. Cephalothorax subrectangular, slightly longer than wide, anterior margin with conspicuous triangular, pointed rostrum with notches just anterior to ocular lobes. Eyes present; eyelobes rounded; no lateral spiniform apophyses anterior of branchial chambers. 6 free pereonites; pereonites 1 and 2 subequal in length, almost 1/3 as long as cephalothorax, lateral margins uniformly convex, dorsal sculpturing conspicuous; pereonites 3 to 6 with anterolateral spiniform apophyses and expanded posterolaterally at attachment of coxae; pereonite 3 as long as pereonite 2, pereonites 4, 5 and 6 subequal (5 longest), 1.3 times as long as pereonite 1 (all pereonites respectively 2.7, 2.4, 2.1, 1.7, 1.6 and 1.5 times as wide as long); conspicuous sickle-shaped ventral hyposphenium on pereonite 1, blunt hyposphenium with distal, posteriorly-directed spine, on pereonite 6. Pleon 1/3 as long as body, of 5 free subequal pleonites bearing pleopods; pleonites dorsally convex, more than 3 times as wide as long, laterally expanded by spiniform apophyses. Pleotelson rectangular, slender, 2.2 times as long as wide, with numerous plumose lateral setae.

Antennule peduncle 4-articled, proximal article 2.9 times as long as wide, internal margin finely corrugated, outer proximal penicillate setae, outer and inner tufts of simple setae at midlength and distally; article-2 0.3 times as long as article 1, with distal crown of inner and outer simple setae and dorsal penicillate setae; article 3 one-third as long as article 2, article 4 just shorter than article 3. Main flagellum of 19 segments; segments 11, 13 and 15 bearing aesthetascs; accessory flagellum of 6 articles.

Antenna proximal peduncle article without apophyses; article 2 inner margin finely denticulate, bearing elongate squama with 17 plumose marginal setae; peduncle article 3 as long as wide, with 1 seta; article 4 slightly shorter than article 5, and 3 times as long as article 3; article 5 with strong outer setae. Flagellum of 15 segments.

Mouth parts. Labrum not seen. Left mandible, bearing strong, crenulated pars incisive; lacinia mobilis with denticulate cutting edge, setiferous lobe with 4 bifurcate or trifurcate setae; pars molaris robust, blunt. Right mandible as left but without lacinia mobilis; outer margin denticulate; mandibular palp of 3 articles, article 1 just longer than wide with 7 inner setae, article 2 3.5 times as long as article 1 with group of longer and shorter simple inner setae in distal half; article 3 half length of article 2 with 10 inner simple setae increasing in length distally, 2 dorsal subdistal simple setae, and 2 longer distal setae. Maxillule inner endite with finely setose outer margin and blunt apophysis,

inner margin proximally denticulate with adjacent setulose margin; 5 finely setulate distal setae, inner 3 distally compound; outer endite with 11 distal spines and 2 subdistal setae, outer margin finely setose, distally with microtrichia; palp of 2 articles, distally with 5 setae. Maxilla with serrations and setules on outer margin; outer lobe of outer endite with 2 setae with setules at midlength on outer margin, 8 distal setae, each distally setulose; inner lobe of movable endite with dense group of simple distal setae; outer lobe of inner endite with 6 simple, 3 trifurcate, 2 inner compound and 1 subdistal setulose spines; inner lobe of fixed endite with rostral row of numerous setae guarding 3 longer setae. Labium with distally-serrated outer margin and setulose distal margin, palp with fine lateral setules and 2 longer and 1 very-short distal setae. Maxilliped basis with inner and distal setae and inner-distal stout spine; palp article 1 with paired distal spines on outer margin and stout inner-distal spine; palp article 2 longer than wide, with rows of numerous short setae on inner margin, 2 longer proximal setae as long as article, outer margin with spine distally; palp article 3 wider than long, with numerous simple filtering setae along inner margin; palp article 4 with 5 distal setae, 1 outer subdistal seta and 5 inner distal setae. Endite with flagellate inner caudodistal seta, simple outer distal setae and stout, spatulate, distal spines; 5 coupling hooks. Epignath large, cup-shaped, distal spine setulose.

Cheliped slender. Basis 2.4 times as long as wide, dorsally naked, ventrally with 1 longer and 1 shorter proximal seta, midventral spine and tuft of 3 distal setae; exopodite absent. Merus elongate, narrower proximally, with midventral simple setae and ventrodiscal group of 3 setae and short spine. Carpus 4.7 times as long as wide, with simple setae along ventral margin, dorsal and ventral distal setae much shorter. Chela fingers shorter than palm, ventral margin of fixed finger with 10 setae, longer seta at inner base of fixed finger; 6 setae near articulation of fixed finger; cutting edge of fixed finger with row of fine setules but no apophyses; dactylus with no apophyses on cutting edge, distal claw pointed.

Pereopod 1 with pronounced, setose spine-like apophysis on coxa. Basis stout, 3 times as long as wide, with sparse ventral setae, 3 distal setae around ventrodiscal spine; inner proximal hook-like apophysis; exopodite absent. Ischium with 3 simple ventrodiscal setae. Merus half as long as basis, with groups of ventral submarginal and dorsodiscal setae, single ventrodiscal spine but no dorsodiscal spine. Carpus 0.8 times as long as merus, ventrally with 2 spines in distal half, and single dorsodiscal spine. Propodus slightly shorter than carpus, with 4 ventral and 2 dorsal spines. Dactylus with mid-dorsal fine setae, no apparent ventral denticulations; unguis short.

Pereopod 2 more slender. Coxa with small spiniform apophysis. Basis 3.6 times as long as wide with 2 longer marginal, numerous ventral marginal and tuft of ventrodiscal setae. Merus 0.8 times as long as carpus, with elongate ventral setae and slender ventrodiscal spine. Carpus elongate, with rows of ventral and dorsodiscal setae, and ventrodiscal spine. Propodus 1.2 times as long as carpus, dorsal and ventral margins setose as figured, 2 ventral and 1 dorsodiscal spines. Dactylus slender, unguis finely pointed, the 2 together 0.75 times as long as propodus.

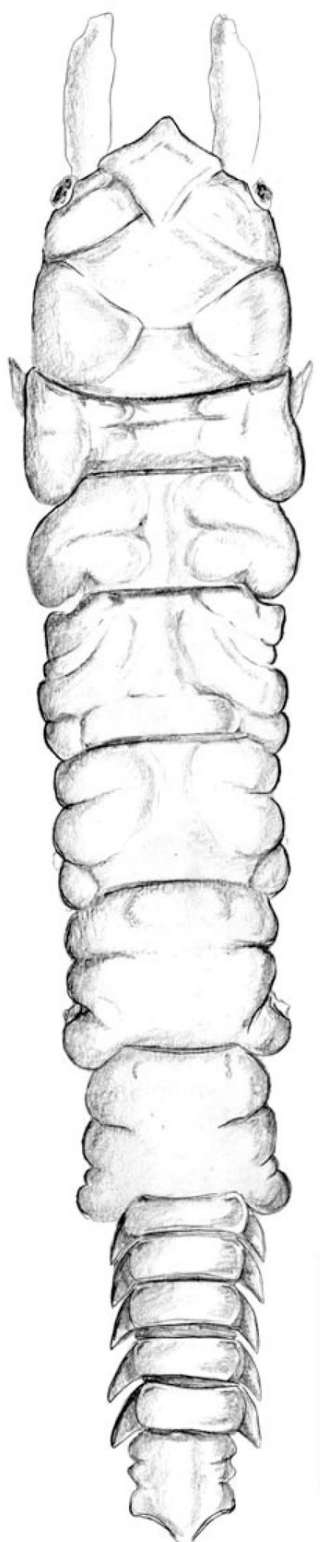


Figure 4. *Apseudes tuski* sp. nov., holotype female, dorsal. Scale line = 1mm.



Figure 5. *Apsydes tuski* sp. nov., A, antennule; B, antenna; C, left mandible; D, right mandible; E, maxillule; F, maxilla; G, labium; H, maxilliped; H', maxilliped endite. Scale line = 0.1mm.

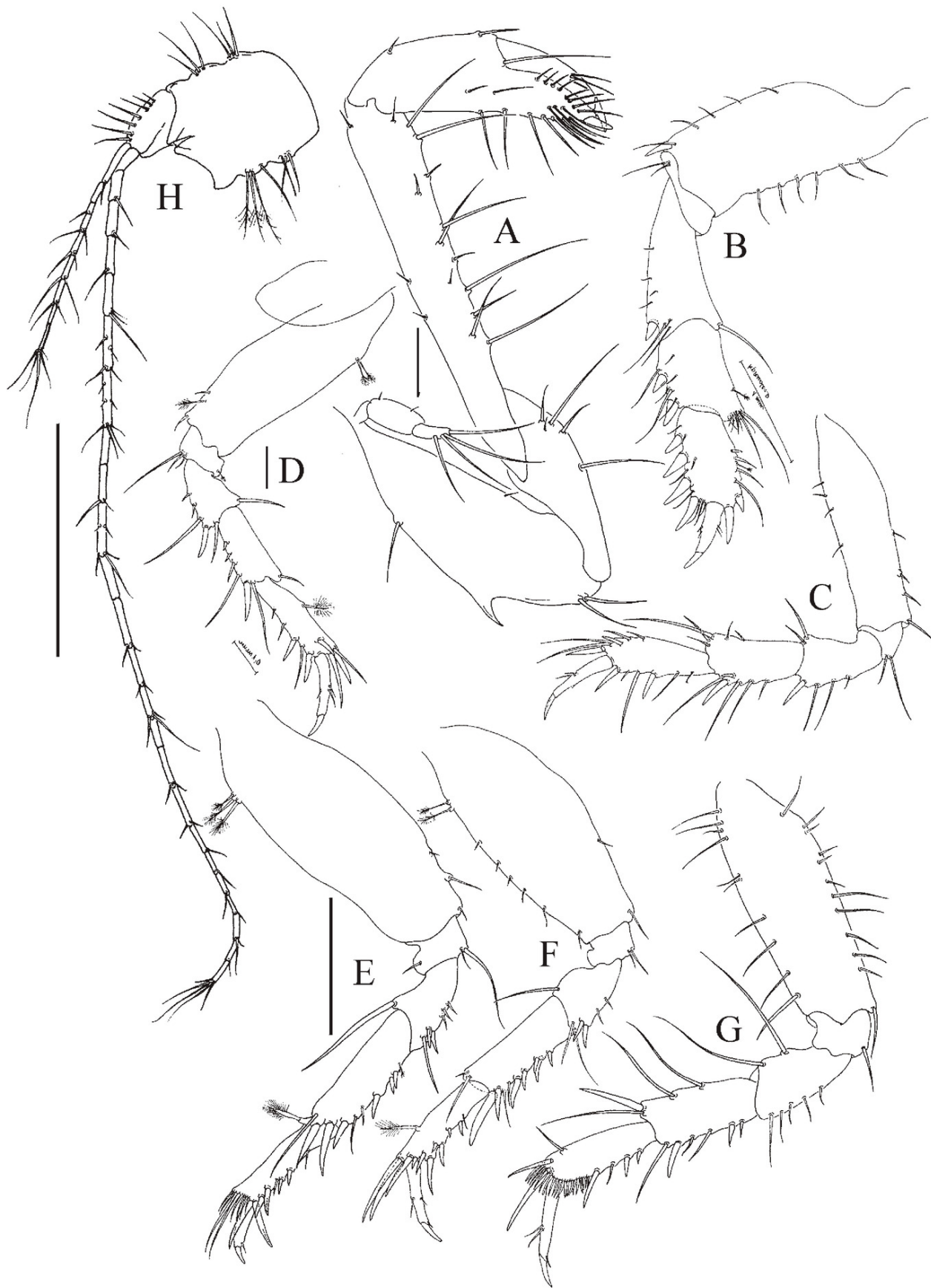


Figure 6. *Apseudes tuski* sp. nov., A, cheliped; B–G, pereopods 1–6 respectively; H, pleotelson and left uropod. Scale line = 0.1mm.

Pereopod 3 similar to pereopod 2, but basis with penicillate seta, propodus with inner subdistal spine.

Pereopod 4 similar to pereopod 2 but basis stouter, 2.8 times as long as wide, without proximal hook-like apophysis, with dorsoproximal and ventrodiscal penicillate setae, merus with midventral, ventrodiscal and dorsodiscal spines, carpus twice as long as merus, with midventral spines and distal crown of 4 spines about 0.5 as long as propodus, interspersed by longer setae; propodus with dorsodiscal tuft of 2 short and 6 longer setae; dactylus plus unguis shorter than propodus but longer than longest dorsodiscal propodal setae.

Pereopod 5 similar to pereopod 2, but without proximal hook-like apophysis, propodus with mid-dorsal penicillate seta and ventral row of 5 spines in distal half, dorsodiscal setae as long as dactylus; dactylus and unguis slender, together as long as propodus.

Pereopod 6 basis with dorsal and ventral margins entirely setose, merus and carpus without spines, propodus with numerous ventral leaf-like propodal spines extending around distal margin of article.

Pleopods all alike. Basis elongate, with 4 ventral plumose setae, dorsal margin naked. Endopod longer than exopod; both rami slender, linguiform, with plumose setae.

Uropod biramous, both rami filiform, multi-segmented. Basis with 1 inner distal seta; exopod about 0.5 as long as endopod, with 13 segments; endopod elongate with 24 segments.

Male unknown.

Etymology. From the Latin *abditus* – hidden, secret, and *spina* – a thorn or spine, referring to the maxilliped palp inner spines and the proximal spiniform apophysis on the basis of pereopods 1 to 3 (noun in apposition).

Remarks. See above under generic remarks.

Genus *Apseudes* Leach 1814

Apseudes tuski sp. nov.

Figures 4–6

Material: Female, holotype (NMV J47119), 1 brooding female, Australia, Victoria, eastern Bass Strait, 43 km SE of Port Albert (38°53.42'S, 147°06.30'E), 58 m, 18/11/1981, (BSS 177), R.S. Wilson; Paratypes: 37 females (NMV J55748), same locality as holotype; 1 female dissected on slides (NMV J55942), same locality as holotype; 2 individuals (NMV J28577), eastern Bass Strait, 10.8 km E of eastern edge of Lake Tyers (37°50.55'S, 148°12.50'E), 25/09/1990, (MSL-EG 118), N. Coleman; 2 individuals (NMV J28625), Stn MSL-EG 58, eastern Bass Strait, 4.6 km S of Cape Conran (37°51.26'S, 148°43.44'E), 50 m, 28/09/1990, (MSL-EG 58), Marine Science Laboratories; 7 individuals (NMV J28624), Australia, Victoria, eastern Bass Strait, 5.3 km ESE of Pt. Ricardo (37°50.29'S, 148°40.35'E), 43 m, 28/09/1990, (MSL-EG 54), Marine Science Laboratories; 2 individuals (NMV J55781), Western Port, off Crib Point (38°21.10'S, 145°14.00'E), 18 m, 29/03/1965, (CPBS-0 60), A.J. Gilmour; 1 individual (NMV J55782), eastern Bass Strait, 28 km SSW of Marlo (37°59'S, 148°27'E), 51 m, 30/07/1983, (BSS 207), M.F. Gomon and R.S. Wilson; 2 individuals (NMV J28623), eastern Bass Strait, 15.1 km WSW of Pt. Ricardo (37°51.38'S, 148°28.14'E), 34 m, 26/09/1990, (MSL-EG 49); 1 individual (NMV J28575), eastern Bass Strait, 11.7 km W of Pt. Ricardo (37°49.53'S,

148°30.08'E), 27 m, 02/1991, (MSL-EG 103), N. Coleman; 1 ovi female, eastern Bass Strait, 8 km S of South East Point, Wilsons Promontory (39°12.54'S, 146°27.18'E), 65 m, 18/11/1981, (BSS 180), R.S. Wilson; 1 hermaphroditic, 81-T-1, Stn 166, (NMV J55784), eastern Bass Strait, 20 km SSW of Babel I. (40°06.48'S, 148°24.18'E), 22 m, 14/11/1981, (BSS 166), R.S. Wilson; 1 ovi female, (NMV J55785), western Bass Strait, 35 km SSW of Cape Otway, Victoria (39°07.00'S, 143°14.36'E), 84 m, 20/11/1981, (BSS 183), R.S. Wilson.

Description of female. Body dorsoventrally flattened, elongate, holotype 5.3 mm long (tip of rostrum to posterior of pleotelson), 5.2 times as long as wide, narrower posteriorly. Cephalothorax subrectangular, slightly longer than wide, anterior margin with conspicuous but blunt rostrum with rounded “shoulders” at base. Eyes present; eyelobes rounded; no lateral spiniform apophyses at anterior margin of branchial chambers. 6 free pereonites, all without lateral spiniform apophyses; pereonite 1 shortest, about one-quarter as long as cephalothorax, pereonite 2 1.5 times as long as pereonite 1, both with lateral margins uniformly convex; pereonites 3, 4 and 6 subequal, twice as long as pereonite 1, with anterolateral indentations reflecting dorsal sculpturing and expansions over coxae of pereopods; pereonite 5 just longest, 1.2 times as long as and of similar morphology to pereonite 4 (all pereonites respectively 4.0, 2.3, 1.7, 1.6, 1.4 and 1.5 times as wide as long); ventral hyposphenia on pereonites 2 and 6. Pleon twice as long as pereonite 5, of 5 free subequal pleonites bearing pleopods; pleonites dorsally convex, 2.5 times as wide as long, laterally expanded by spiniform apophyses. Pleotelson rectangular, short, one-third length of whole pleon, 1.1 times as long as wide, with bunches of lateral setae on similar rounded protuberances to those of pereonites 3 to 6.

Antennule peduncle 4-articled, article 1 3.2 times as long as wide, with inner margin denticulate, setose as figured; 2 0.45 times as long as 1st, with simple inner and longer outer-distal setae; 3 less than half length of article 2, article 4 half as long as article 3, naked. Main flagellum of 8 segments, segments 6 and 8 bearing aesthetascs; accessory flagellum of 5 segments.

Antenna peduncle article 1 simple; article 2 bearing 2 inner and 1 outer marginal seta and elongate squama with 8 marginal setae; peduncle article 3 as long as wide, naked; article 4 slightly longer than article 5, and 4 times as long as article 3. Flagellum of 7 segments.

Mouth parts. Labrum not seen. Left mandible with outer margin naked, bearing narrow crenulated pars incisiva and lacinia mobilis, setiferous lobe with 3 trifurcate setae, pars molaris robust, blunt; mandibular palp of 3 articles, article 1 naked, articles 2 and 3 with 9 ventral setae in distal half, distally with additional 4 longer simple setae. Right mandible as left but without lacinia mobilis. Maxillule inner endite with finely setose outer margin and 5 finely setulate distal setae; outer endite with 11 distal spines and 2 subdistal setae, outer margin finely setose; palp of 2 articles, distally with 5 setae. Maxilla with tuft of setae on outer margin; outer and inner lobes of outer endite with bilaterally setulose setae; outer lobe of inner endite with bilaterally setulose, plumose and trifurcate distal and subdistal spines as figured, outer margin denticulate, inner margin with microtrichia; inner lobe of fixed endite with rostral row of numerous setulose setae guarding 4 longer setae. Labium with fine serrations on outer margin and setulose

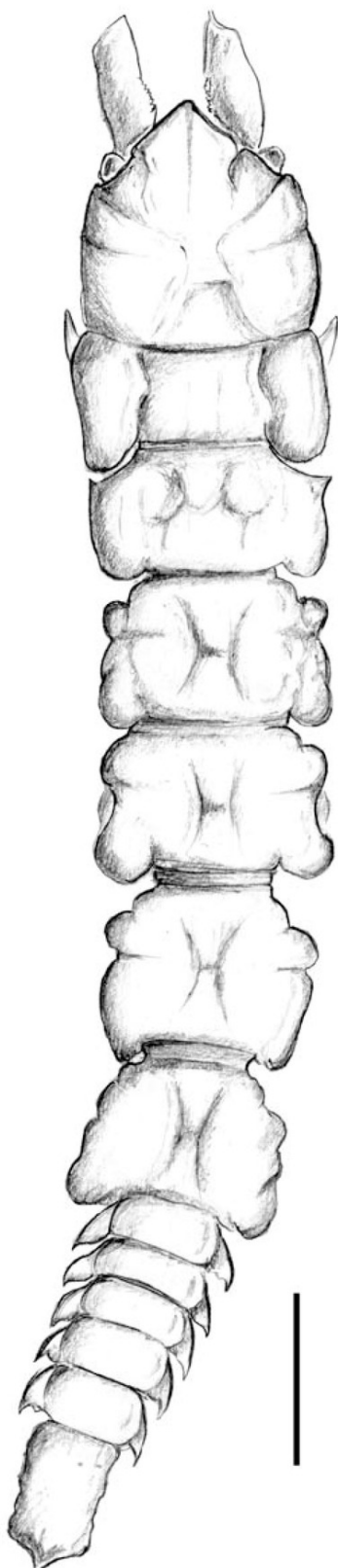


Figure 7. *Apseudes poorei* sp. nov., holotype female, dorsal. Scale line = 1mm.

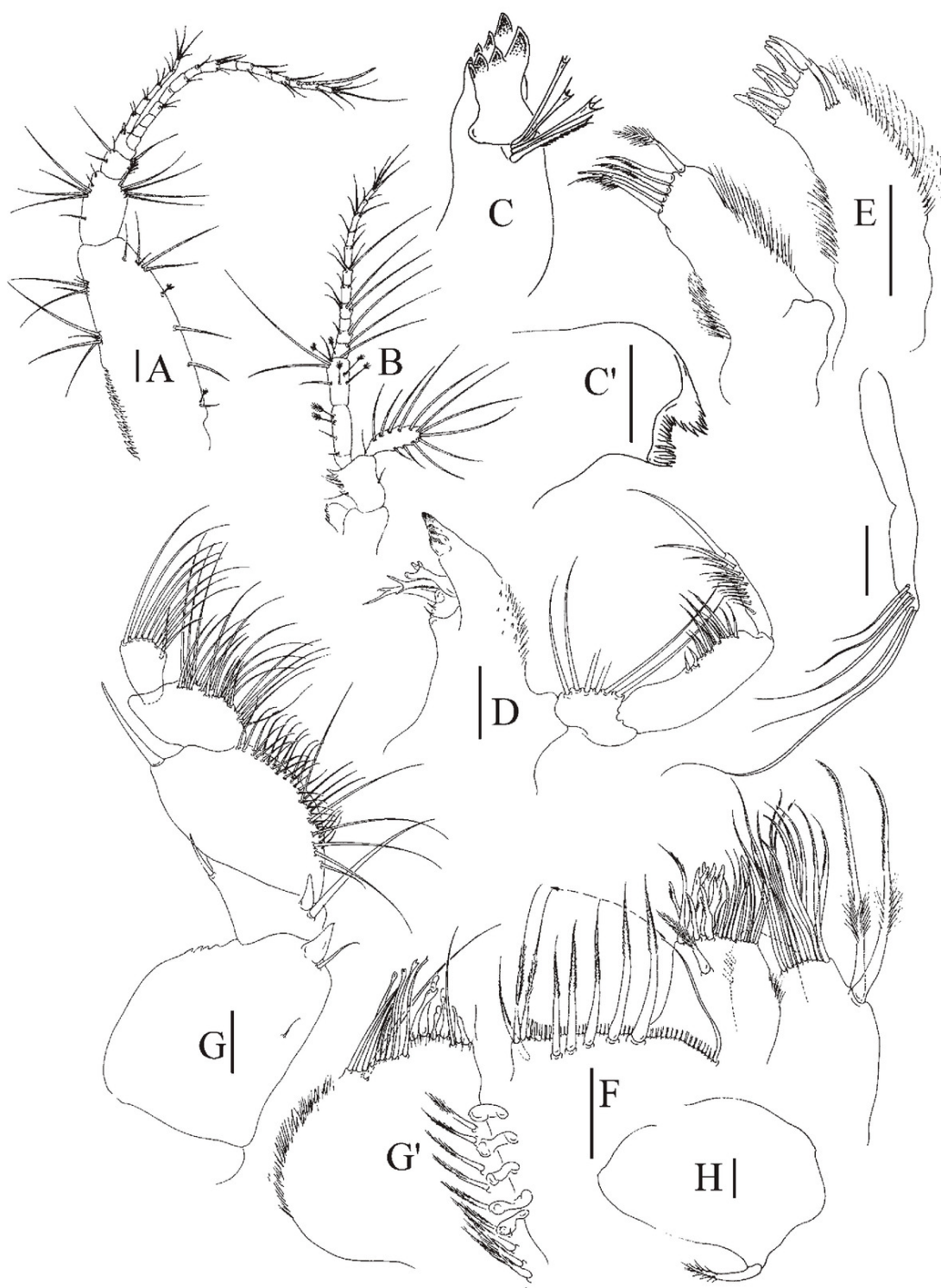


Figure 8. *Aapseudes poorei* sp. nov., A, antennule; B, antenna; C, left mandible; C', pars molaris of same; D, right mandible; E, maxillule; F, maxilla; G, maxilliped; G', maxilliped endite; H, epignath. Scale line = 0.1mm.



Figure 9. *Apseudes poorei* sp. nov., A, cheliped; B–E, pereopods 1–4 respectively; F, pereopod 6; G, pereopod 5; H, pleopod; I, pleotelson and right uropod. Scale line = 0.1mm.

distal margin, palp with fine lateral setules and 3 simple distal setae. Maxilliped basis with 3 distal setae; palp article 1 with single inner and outer distal setae; palp article 2 longer than wide, with 2 rows of filtering setae on inner margin, the longest as long as article 3, outer margin with 3 spines, distal spine large and robust; palp article 3 longer than wide, with 9 simple setae along inner margin; palp article 4 with 10 distal setae, and single inner and outer subdistal setae. Maxilliped endite with setulose inner caudodistal seta and stout, spatulate, distal spines; 2 coupling hooks. Epignath not seen.

Cheliped slender. Basis 2.9 times as long as wide, dorsally with single fine seta, ventrally with simple proximal seta, midventral spine and 2 distal setae; exopodite present, 3-articled, article 2 with 2 setules, article 3 with 4 plumose setae. Merus elongate, narrowing proximally, with 1 midventral seta and 4 subdistal setae on ventral "shoulder". Carpus 6.6 times as long as wide, with sparse longer and shorter simple setae along ventral margin, short setae at mid-length and distally on dorsal margin. Chela fingers shorter than palm, ventral margin with 7 setae; 3 outer setae on fixed finger, cutting edge with 8 fine setae but no apophyses; dactylus with 3 subdistal setae but no apophyses on cutting edge, distal claw pointed.

Pereopod 1 with pronounced spine-like apophysis on coxa. Basis stout, 2.6 times as long as wide, with dorsal and ventral marginal setae and ventrodiscal spine; exopodite present, 3-articled, article 3 with 4 distal plumose setae. Ischium with 2 simple ventrodiscal setae. Merus half as long as basis, with ventrodiscal but no dorsodiscal stout spine. Carpus 0.75 times as long as merus, with dense tuft of dorsodiscal setae surrounding short, stout spine, ventrally with 2 stout spines. Propodus as long as carpus, with 4 ventral and 2 dorsodiscal stout spines. Dactylus stout, with 2 middorsal fine setae and ventral denticulations; unguis short.

Pereopod 2 more slender. Basis 4 times as long as wide with sparse setae. Merus 0.9 times as long as carpus, with slender ventrodiscal spine. Carpus elongate, with dorsodiscal seta as long as article, sparse setae otherwise, and ventrodiscal slender spine. Propodus as long as carpus, 2 ventral spines, dorsally with 1 distal and subdistal spines. Dactylus slender with fine dorsal setae, unguis slender, the 2 together just shorter than propodus.

Pereopod 3 similar to pereopod 2, but basis and propodus with penicillate setae, longest seta on ischium longer than merus.

Pereopod 4 basis more robust, twice as long as wide, with dorsoproximal penicillate setae, longest seta on ischium longer than merus, merus with 2 shorter ventrodiscal spines and long dorsodiscal seta almost as long as carpus, carpus with paired ventral spines, longer distal spines; propodus with dorsoproximal penicillate seta, dorsodiscal tuft of 6 short and 2 long finely denticulate setae, distal spines as long as dactylus; dactylus plus unguis two-thirds as long as propodus.

Pereopod 5 similar to pereopod 4; setae on ischium and merus proportionately shorter, dactylus plus unguis proportionately longer, propodus with dorsodiscal spines.

Pereopod 6 basis with setae along entire dorsal and ventral margins, paired long dorsal setae on merus and carpus, carpus with slender dorsodiscal spine, 18 ventral leaf-like propodal spines extending around distal margin of article.

Pleopods all similar, basis with 2 ventral and 1 dorsal plumose setae, rami elongate, inner ramus setose all round, outer ramus shorter, with naked inner proximal margin.

Uropod biramous, both rami filiform, multi-segmented. Basis with outer row of setae; exopod one-quarter as long as endopod, with 8 segments; endopod elongate, with about 24 segments.

Male unknown.

Etymology. The species is named after the Polish Prime Minister Donald Tusk who was elected as this species was being described.

Remarks. *Apseudes tuski* sp. nov. is most similar to that group of *Apseudes sensu lato* with no spiniform apophyses on the cephalon or pereon, and rounded ocular lobes usually with eyes, similar to *A. latreilli* (Milne-Edwards, 1828) and *A. africanus* Tattersall, 1925. The new species appears closest to *A. erythraeicus* Băcescu, 1984 (q.v.) from the Red Sea, but that species has a dorsodiscal spine on the merus, more articles in the antennular main flagellum, proportionately more compact antennular peduncle articles, more setae on the antennal squama and a pointed rostrum. Indeed, in the absence of a dorsodiscal spine on the merus, *A. tuski* approaches the genus *Apseudopsis* Norman, 1899 *sensu* Guțu (2006); however, the short cephalon, the presence of eyes and the multiarticulated uropod exopod prevent placing the present species in that essentially Mediterranean – North-Atlantic genus, and Guțu (2006) points out that the denticulation of the inner margin of the proximal antennular peduncle article, well-developed in *A. tuski*, is a feature of *Apseudes sensu stricto*.

The comparatively blunt rostrum, and the relatively short, blunt marginal spines on pereopod 1, particularly the very short dorsodiscal spine on the merus are valuable distinguishing features of *A. tuski*, while the peculiar outer spination of the proximal maxilliped palp article appears to be unique.

Apseudes poorei sp. nov.

Figures 7–9

Material. Female, holotype (NMV J55747); Australia, Victoria, Western Port, off Crib Point (38°20.49'S, 145°13.51'E), 13 m, 30/03/1965, (CPBS-N 41), A.J. Gilmour. Paratypes: 1 female with oostegites, 1 juvenile, (NMV J53142), 2 specimens dissected on slides (NMV J55943), same locality as holotype; 1 male (NMV J55790), eastern Bass Strait, 8 km S of South East Point, Wilsons Promontory (39°12.54'S, 146°27.18'E), 65 m, 18/11/1981, (BSS 180), R.S. Wilson; 1 individual (NMV J55791), eastern Bass Strait, 37 km NNE of Eddystone Point (40°43.48'S, 148°37.12'E), 67 m, 14/11/1981, (BSS 164), R.S. Wilson; 2 individuals (1 adult male), (NMV J55792), Tasmania, eastern Bass Strait, 30 km N of North Point, Flinders I. (39°26.18'S, 147°48.42'E), 49 m, 17/11/1981, (BSS 173), R.S. Wilson; 3 individuals (NMV J55793), central Bass Strait, 35 km NE of Cape Wickham, (39°16.00'S, 144°05.24'E), 82 m, 23/11/1981, R.S. Wilson; 3 individuals (NMV J55794), central Bass Strait, 47 km E of Cape Rochon, Three Hummock I. (40°23.48'S, 145°32.00'E), 66 m, 03/11/1980, (BSS 113), M.F. Gomon and G.C.B. Poore; 2 manca, (NMV J55795), central Bass Strait, 47 km E of Cape Rochon, Three Hummock I. (40°23.48'S, 145°32.00'E), 66 m, 03/11/1980, (BSS 113), M.F. Gomon and G.C.B. Poore; 6 individuals (2 manca), (NMV J55796), eastern Bass Strait, 28 km SSW of Marlo (37°59'S, 148°27'E), 51 m, 30/07/1983, (BSS 207), M.F. Gomon and R.S. Wilson; 1 hermaphroditic, (NMV J55797),

central Bass Strait, 38 km SW of Cape Paterson (38°55.30'S, 145°17.00'E), 70 m, 12/11/1981, (BSS 155), R.S. Wilson; 1 individual, (NMV J55801), central Bass Strait, 38 km SW of Cape Paterson (38°55.30'S, 145°17.00'E), 70 m, 12/11/1981, (BSS 155), R.S. Wilson; 1 ovi female (with well developed genital cone), (NMV J55798), central Bass Strait, 44 km NE of Cape Wickham, King I. (39°22.00'S, 144°18.18'E), 60 m, 23/11/1981, (BSS 203), R.S. Wilson; 1 male (NMV J55799), Tasmania, eastern Bass Strait, 30 km N of North Point (39°26.18'S, 147°48.42'E), 49 m, 17/11/1981, (BSS 173), R.S. Wilson; 6 individuals (4 females ovi), (NMV J55800), central Bass Strait, 44 km NE of Cape Wickham, King I. (39°22.00'S, 144°18.18'E), 60 m, 23/11/1981, (BSS 203), R.S. Wilson.

Description of female. Body dorsoventrally flattened, elongate, holotype 10.1 mm long (tip of rostrum to posterior of pleotelson), 6.5 times as long as wide, narrower posteriorly. Cephalothorax subrectangular, almost subcircular, as long as wide, anterior margin with triangular, blunt rostrum with notches just anterior to ocular lobes. Eyes present; eyelobes rounded; no lateral spiniform apophyses at anterior margin of branchial chambers. 6 free pereonites, all without lateral spiniform apophyses; pereonite 1 shortest, 0.4 times length of cephalothorax, pereonite 2 half as long as cephalothorax, both with lateral margins uniformly convex, pereonite 2 with slightly angular anterolateral corners; pereonites 3 to 6 subequal in length (5th longest), 1.7 times as long as pereonite 1, indented behind anterolateral rounded shoulders and mostly expanded posterolaterally at attachment of coxae; all pereonites respectively 2.7, 1.8, 1.5, 1.5, 1.2 and 1.3 times as wide as long; ventral hyposphenium on pereonite 6. Pleon 2.4 times as long as pereonite 6, of 5 free subequal pleonites bearing pleopods; pleonites dorsally convex, 2.5 times as wide as long, laterally expanded by spiniform apophyses. Pleotelson rectangular, 0.4 times length of whole pleon, 1.6 times as long as wide, with numerous lateral setae.

Antennule peduncle 4-articled, article 1 2.7 times as long as wide, with denticulations along proximal half of inner margin, setose as figured; article 2 0.3 times as long as article 1, with inner and outer distal tufts of long setae; article 3 0.4 times as long as article 2, article 4 one-third as long as 3rd, naked. Main flagellum of 15 segments, segments 13 and 15 bearing aesthetascs; accessory flagellum of 5 segments.

Antenna peduncle article 1 with inner denticulate apophysis; article 2 bearing inner denticulations and elongate squama with 13 marginal setae; peduncle article 3 as long as wide, with 1 seta; article 4 slightly longer than article 5, both with penicillate setae. Flagellum of 11 segments, most proximal segments with long outer setae.

Mouth parts. Labrum not seen. Left mandible outer margin finely setose, bearing strongly denticulated pars incisiva and lacinia mobilis, setiferous lobe with 4 trifurcate setae; pars molaris robust, distally spinose. Right mandible as left but without lacinia mobilis; mandibular palp of 3 articles, article 1 longer than wide with 6 long setae along inner margin, article 2 nearly 3 times as long as article 1 with 2 rows of longer and shorter simple setae in distal half; article 3 half length of article 2 with numerous inner simple setae increasing in length towards tip of article, longer distal seta as long as article. Maxillule inner endite with finely setose outer and inner margins, rounded outer apophysis and 5 finely setulate distal setae; outer endite

with 11 distal spines and 2 subdistal setae, margins finely setose; palp of 2 stout articles, distally with 5 setae. Maxilla with smooth outer margin; outer lobe of outer endite with 2 setae on outer margin setulose at mid-length; other setae of outer endite simple; outer lobe of inner endite with simple setae, stout bifurcate and trifurcate spines and plumose inner and subdistal setae; inner lobe of fixed endite with rostral row of numerous setae guarding 5 longer setae. Labium not seen. Maxilliped basis with inner distal seta and stout spine; palp article 1 with seta on outer margin and inner distal seta and stout spine; palp article 2 longer than wide, with rows of numerous short setae and few proximal longer filtering setae on inner margin, outer margin with slender distal spine; palp article 3 longer than wide, with rows of filtering setae along inner margin; palp article 4 longer than wide, with 9 distal and 1 subdistal setae. Endite with flagelliform inner caudodistal seta and stout, spatulate, inner distal spines, slender compound outer spines and outer simple setae; 5 coupling hooks. Epignath large, cup-shaped, distal spine distally setulose.

Cheliped not slender. Basis 3.6 times as long as wide, dorsally with 3 plumose setae, ventrally with 3 proximal seta, midventral spine and tuft of 3 distal setae; exopodite present, 3-articled, article 2 naked, distal article with 5 plumose setae. Merus elongate, with 3 midventral and 4 subdistal setae. Carpus 4.2 times as long as wide, with 4 longer simple setae along ventral margin, sparse shorter setae along dorsal margin. Chela fingers shorter than palm, palm wider than long, ventral margin of fixed finger with dense row of setae; 4 setae near articulation of fixed finger and 2 at axis of gape; cutting edge of fixed finger with row of fine setules interspersing flat, rounded "teeth", but no apophyses, distal claw pointed; dactylus with 3 subdistal setae but no apophyses on cutting edge, distal claw pointed.

Pereopod 1 with pronounced, setose, spiniform apophysis on coxa. Basis stout, twice as long as wide, with dorsoproximal seta, ventrodistal setae and small ventrodistal spine; exopodite present, 3-articled, article 2 naked, article 3 with 5 distal plumose setae. Ischium with 2 simple ventrodistal setae. Merus 0.8 times as long as basis, with midventral group of 4 setae, and 4 dorsodistal simple setae surrounding slender spine, shorter, stouter ventrodistal spine. Carpus less than half as long as merus, as long as wide, with 2 ventral and 1 dorsodistal stout spines. Propodus longer than merus, with 3 ventral and 2 dorsal stout marginal spines interspersed with simple setae. Dactylus stout, with mid-dorsal fine seta, unguis short, both together 0.7 times as long as propodus.

Pereopod 2 more slender. Coxa without spiniform apophysis. Basis 3.5 times as long as wide with tuft of ventrodistal setae, plumose midventral setae and mid-dorsal penicillate seta. Merus 0.9 times as long as carpus, with groups of midventral, ventrodistal and dorsodistal setae and slender ventrodistal spine, inner distal seta as long as carpus; carpus with similar setation and spination. Propodus just longer than carpus, dorsally and ventrally setose, with 2 ventral, 2 inner and 1 dorsodistal spines. Dactylus slender with 2 dorsal setae, unguis slender, the 2 together just shorter than propodus.

Pereopod 3 similar to pereopod 2, but basis with long inner setae, carpus with inner distal spines.

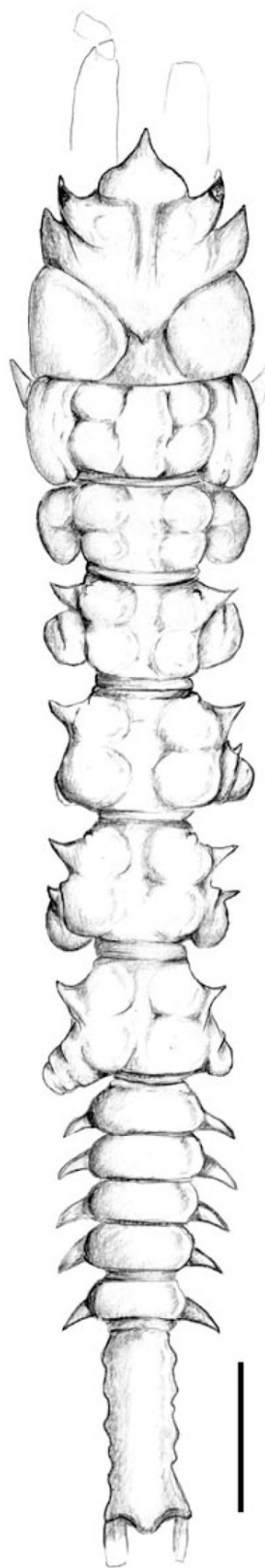


Figure 10. *Spinosapseudes colobos* sp. nov., holotype female, dorsal. Scale line = 1mm.

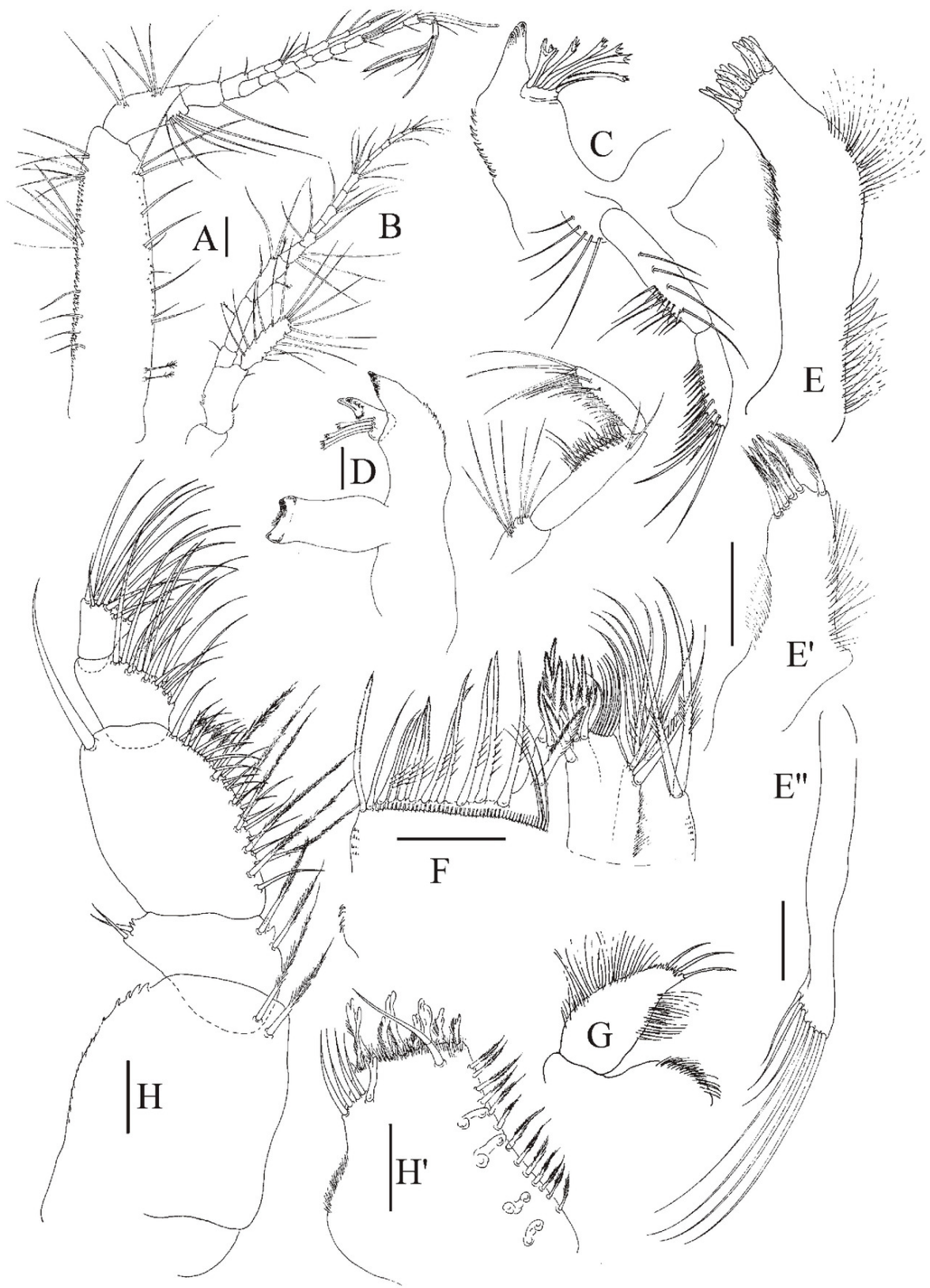


Figure 11. *Spinosapseudes colobos* sp. nov., A, antennule; B, antenna; C, right mandible; D, left mandible; E, maxillule; F, maxilla; G, labium; H, maxilliped; H', maxilliped endite. Scale line = 0.1mm.

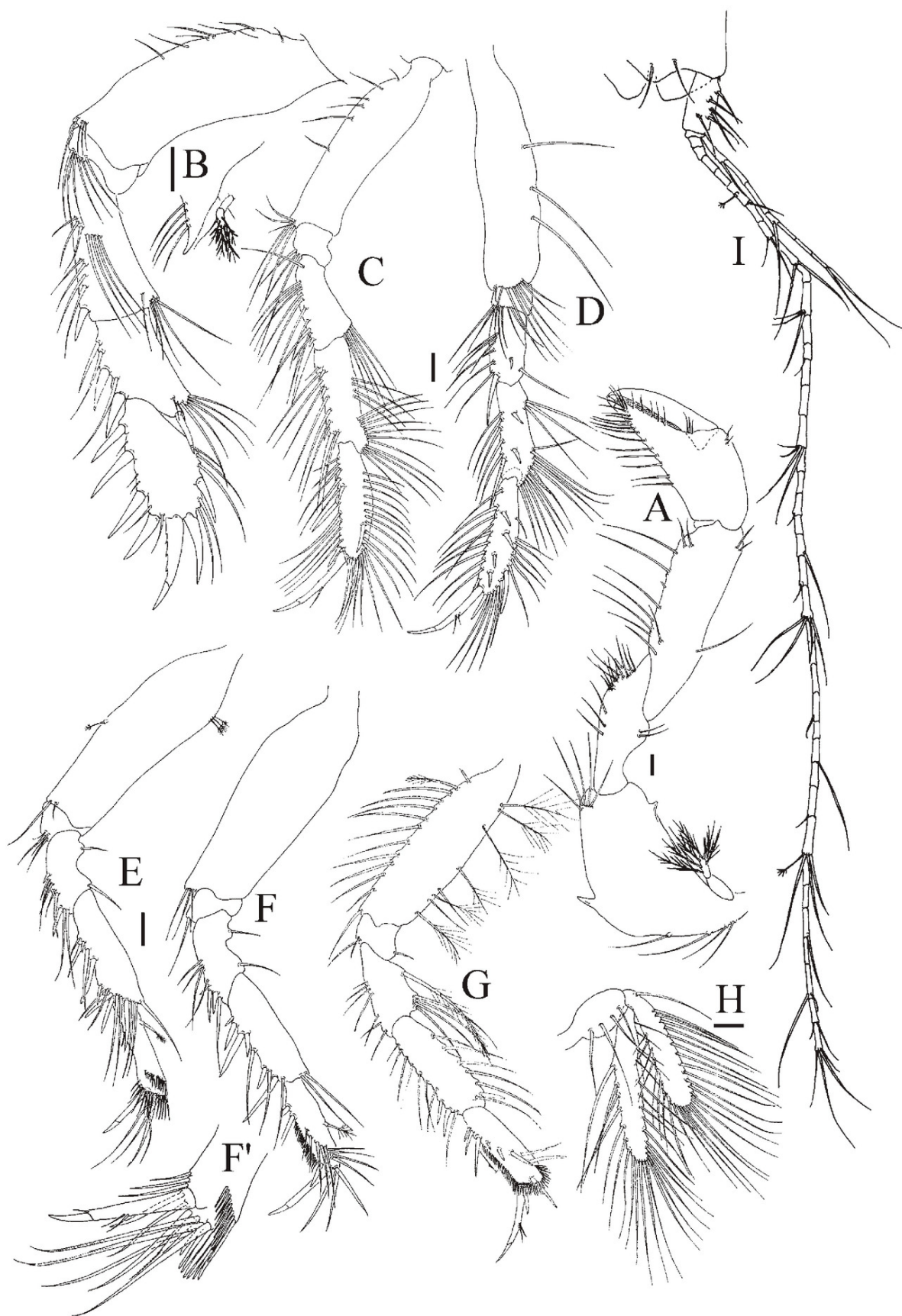


Figure 12. *Spinosapseudes colobos* sp. nov., A, cheliped; B–G, pereopods 1–6 respectively; H, pleopod; I, uropod. Scale line = 0.1mm.



Figure 13. *Spinosapseudes colobos* sp. nov., male cheliped. Scale line = 0.1mm.

Pereopod 4 basis stouter, 3 times as long as wide, with 2 plumose setae and dorsal and ventral penicillate setae; merus two-thirds as long as carpus with paired ventrodiscal spines and longer dorsodistal spine; carpus dorsally naked, with paired ventral spines and ventrodiscal spines amongst slender setae; propodus with dorsoproximal penicillate seta, 2 ventral spines amongst row of fine marginal setae, dorsodistal tuft of numerous short and 5 long fine setae; dactylus plus unguis shorter than propodus.

Pereopod 5 similar to pereopod 4, but basis with ventroproximal spine, simple dorsal setae; merus with slender dorsodistal and shorter, paired ventrodiscal spines; propodus with ventral row of fine denticulations in proximal half.

Pereopod 6 basis with dorsal and ventral plumose marginal setae, merus without spines, propodus with 24 ventral leaf-like propodal spines extending to distal margin of article.

Pleopods all alike. Basis elongate, with 2 dorsal and 2 ventral plumose setae. Endopod slightly longer than exopod; both rami slender, with plumose marginal setae, largely confined to distal half on exopod.

Uropod biramous, both rami filiform, multi-segmented. Basis with long setae distally on inner and outer margins; exopod less than one-quarter as long as endopod, with 13 segments; endopod elongate, 5.5 times as long as pleotelson, with more than 40 segments.

Male unknown.

Etymology. Named for Gary Poore of Museum Victoria, who collected much of the material analysed herein, in gratitude for his assistance in making all the tanaidacean material held at Melbourne available for study.

Remarks. In many ways, *Apseudes poorei* sp. nov. is close to the previous species, *A. tuski*, with a generally similar body, mouthpart and pereopod morphology (although differing in detail); conversely, it too has inner distal spines on the maxilliped basis and proximal palp article, as found in *Annexos abditospina*, also described above (although there are few other similarities between that and the present species). Along with *A. bucospinosus*, there seems to be a common theme of maxilliped spination amongst the eastern Australian species of Apseudinae. Other distinctions of *A. poorei* from *A. tuski* include the presence of a dorsodistal spine on the merus of pereopod 1, the extreme length of that merus, the proportionately longer pleotelson, 1 fewer ventral propodal spine on pereopod 1, longer flagella on the antennule and antenna, the inner apophysis on the proximal antennal peduncle article, a longer uropod endopod, and the presence of plumose setae on the bases of pereopods 2 and 4; all but the 1st of these also distinguish *Apseudes poorei* from the otherwise similar *A. erythraeicus* (see discussion under *A. tuski*).

Genus *Spinosapseudes* Guţu, 1996*Spinosapseudes colobos* sp. nov.

Figures 10–13

Material. Female, holotype (NMV J55746), Australia, Victoria, central Bass Strait, 66 km S of Rodondo I. (39°49.30'S, 146°18.30'E), 82 m, 13/11/1981 (BSS 158 G), R.S. Wilson. Paratypes: 1 male, allotype (NMV J55745), same locality as holotype; 10 females without oostegites, 5 males (NMV J47125), 1 female dissected, (J55944), same locality as holotype; 1 female (NMV J55767), Victoria, central Bass Strait, 26 km SE of Aireys Inlet (38°39.48'S, 144°18.12'E), 79 m, 19/11/1981, R.S. Wilson; 5 females, 7 males, 17 juveniles (NMV J55768), central Bass Strait, 100 km SSE of Cape Liptrap, Victoria (39°45.54'S, 145°33.18'E), 74 m, 13/11/1981, R.S. Wilson; 3 females, 5 males, 2 manca (NVM J55769), central Bass Strait, 100 km SSE of Cape Liptrap, Victoria (39°45.54'S, 145°33.18'E), 74 m, 13/11/1981, R.S. Wilson; 1 female (NMV J55770), central Bass Strait, 65 km ENE of Cape Rochon, Three Hummock I. (40°10.54' S, 145°44.18' E), 75m, 13/11/1981, (BSS 157), R.S. Wilson; 1 male (NMV J55771), Victoria, central Bass Strait, 26 km SE of Aireys Inlet (38°39.48'S, 144°18.12'E), 79 m, 19/11/1981, R.S. Wilson; 4 female, 4 males (NMV J55772), Tasmania, central Bass Strait, 47 km E of Cape Rochon, Three Hummock I. (40°23.48'S, 145°32.00'E), 66 m, 03/11/1980, (BSS 113), M.F. Gomon and G.C.B. Poore; 1 juvenile (NMV J55773) Tasmania, central Bass Strait, 47 km E of Cape Rochon, Three Hummock I. (40°23.48'S, 145°32.00'E), 66 m, 03/11/1980, (BSS 113), M.F. Gomon and G.C.B. Poore, 4 females, 5 males, 8 manca (NMV J55775), eastern Bass Strait, 63 km E of North Point, Flinders I. (39°44.48'S, 148°40.36'E), 124 m, 14/11/1981, (BSS 167), R.S. Wilson; 1 male (NMV J55774) eastern Bass Strait, 20 km SSW of Babel I. (40°06.48'S, 148°24.18'E), 22 m, 14/11/1981, (BSS 166), R.S. Wilson.

Description of female. Body dorsoventrally flattened, elongate, holotype 9.5 mm long (tip of rostrum to posterior of pleotelson), 6.7 times as long as wide, narrower posteriorly. Cephalothorax subrectangular, 1.2 times as long as wide, anterior margin with conspicuous pointed rostrum with rounded “shoulders” at base. Eyes present; eyelobes modified to prominent spine-like apophyses directed anterolaterally; conspicuous lateral spiniform apophyses at anterior margin of branchial chambers. 6 free pereonites; pereonites 1 and 2 subequal, about 0.4 times as long as cephalothorax, lateral margins uniformly convex; pereonite 3 as long as pereonite 2, with anterolateral spine-like apophyses and expanded posterolaterally at attachment of coxae; pereonites 4, 5 and 6 subequal (4 longest), 1.2 times as long as pereonite 2, with anterolateral spine-like apophyses and expanded posterolaterally at attachment of coxae (all pereonites respectively 2.3, 2.0, 1.6, 1.3, 1.25 and 1.25 times as long as long); ventral hyposphenia present on all pereonites. Pleon 3.6 times as long as pereonite 6, of 5 free subequal pleonites bearing pleopods plus pleotelson; pleonites 2.54 times as wide as long, laterally expanded by spiniform apophyses. Pleotelson long and slender, almost half length of whole pleon, 2.8 times as long as wide, lateral margins undulating, with paired distal setae.

Antennule peduncle article 1 elongate, 3.7 times as long as wide, setose as figured, inner margin finely corrugated; article 2 0.3 times as long as article 1, with 2 groups of inner marginal setae and tuft of outer distal setae, longest of these longer than article; article 3 half length of article 2, with long outer seta; article 4 half as long as article 3, with inner distal seta. Main

flagellum of 15 segments, segments 10, 12 and 13 bearing aesthetascs; accessory flagellum of 6 segments.

Antenna peduncle article 1 simple; article 2 twice as long as wide, with proximal inner and outer marginal denticulations and 2 outer setae, and bearing elongate squama with 16 marginal setae; peduncle article 3 as long as wide, with 1 seta; article 4 slightly longer than article 5, and 3 times as long as article 3, with inner penicillate seta; article 5 with outer penicillate seta and simple and penicillate setae at inner distal corner. Flagellum of 11 segments.

Mouth parts. Labrum rounded, simple setose. Right mandible with outer margin finely denticulate, bearing strong, crenulated pars incisiva, setiferous lobe with 7 distally compound setae and 1 simple seta, pars molaris robust, blunt, distally with marginal spinules; mandibular palp of 3 articles, article 1 just longer than wide with row of 5 inner setae; article 2 5 times as long as wide with 2 parallel rows of inner simple setae in distal 3rd and row of 4 mesial setae in distal half; article 3 about two-thirds as long as article 2 with row of inner simple setae increasing in length towards distal end of article, 3 distal mesial setae, and 3 longer distal setae. Left mandible as right but with crenulate lacinia mobilis. Maxillule inner endite marginally setose with outer blunt apophysis, distally with 5 plumose spines; outer endite with 1 shorter (“dwarfed” *sensu* Lang, 1968) and 12 longer stout and blunt distal spines and 2 subdistal setae, outer and inner margins finely setose; palp of 2 articles, distally with 7 setae. Maxilla with microtrichia on outer margin; outer lobe of outer endite with 2 setae with mid-length setulation on outer margin, distally with 9 similar setae; inner lobe of outer endite with curved simple setae; outer lobe of inner endite with setulose spines distally and subdistally; inner lobe of fixed endite with rostral row of numerous setae guarding 10 longer setae with mid-length setulation, innermost seta finely bilaterally denticulate. Labium with setulose distal margin, palp with conspicuous lateral setules and 3 fine distal setae. Maxilliped basis irregularly serrated on outer distal margin and with 2 inner distal plumose setae; palp article 1 with 2 outer distal setae and 2 plumose inner setae; palp article 2 longer than wide, with rows of numerous shorter simple and longer plumose setae on inner margin, outer margin with simple strong distal seta; palp article 3 longer than wide, with numerous simple setae along expanded inner margin; palp article 4 with 13 distal setae. Endite with 4 coupling-hooks, simple outer distal setae, simple whip-like inner caudodistal seta and stout, spatulate, distal spines (“chitinous formations” *sensu* Lang, 1968). Epignath not seen.

Cheliped relatively slender. Basis 1.75 times as long as wide, dorsally with spine-like apophysis in distal half, ventrally with proximal setae, midventral spine and tuft of 5 distal setae; exopodite present, 3-articled, distal article with 6 setae. Merus elongate, with paired dorsal and 3 mid-ventral setae, ventrodorsal spine-like apophysis amongst tuft of setae. Carpus more than 3 times as long as wide, with row of setae along ventral margin mostly longer than carpal width, 1 proximal and 2 distal simple setae on dorsal margin. Chela fingers about as long as palm, ventral margin with 10 setae, 7 distal setae around claw of fixed finger; 3 setae near articulation of fixed finger; dactylus slender, as long as fixed finger, distal claw pointed.

Pereopod-1 with pronounced spine-like apophysis on coxa. Basis stout, 2.8 times as long as wide, with ventral setae in proximal half, tuft of ventrodiscal setae and short spine; exopodite present, 3-articled, article 3 with 5 distal setae. Ischium with 5 simple ventrodiscal setae. Merus two-thirds as long as basis, with rows of 7 ventral setae and 4 fine outer mesial setae, 4 dorsodiscal simple setae, ventrodiscal spine. Carpus shorter than merus, with dorsodiscal spine adjacent to group of long simple setae, and ventrally with 2 spines in distal 0.5 interspersed with simple setae. Propodus half as long as carpus plus merus, with 2 dorsal spines, longer dorsal setae, 4 ventral spines. Dactylus slender, about 0.7 length of propodus, with ventral denticulations; unguis short.

Pereopod 2 more slender, basis 3.9 times as long as wide. Merus 0.9 times as long as carpus, with elongate setae along ventral margin, but restricted to distal corner dorsally. Carpus elongate, with rows of ventral and dorsal setae. Propodus just shorter than carpus, similarly setose but with 1 submarginal dorsal and ventrodiscal spine. Dactylus slender with fine subdistal seta, with unguis and dactylus as long as propodus.

Pereopod 3 similar to pereopod 2, but basis with longer marginal setae, carpus and propodus with mesial spines.

Pereopod 4 coxa with spine-like apophyses, basis 3.6 times as long as wide, with penicillate setae, merus with sinuous dorsal margin and 2 ventral spines amongst longer setae, carpus 1.7 times as long as merus with ventral and distal spines and setae, distal setae more than half as long as propodus; propodus shorter than carpus, with proximo-dorsal penicillate seta, subdistal and distal rows of short setae, 4 longer distal setae exceeding unguis; dactylus plus unguis shorter than propodus.

Pereopod 5 similar to pereopod 4, coxa with apophyses, distal short setae forming a crown around tip of propodus.

Pereopod 6 similar to pereopod 5, but basis with rows of marginal setae, ventrally simple but dorsally plumose; merus with single plumose dorsal seta; carpus with simple dorsal marginal setae; propodus with ventroproximal and mesial short spines, row of fine leaf-like spines around dorsal margin and along distal two-thirds of ventral margin.

Pleopods all alike. Basis with 4 inner (ventral) plumose setae. Endopod longer than exopod without proximal articulation; both rami slender, with numerous marginal plumose setae. Inner proximal seta on endopod more robust.

Uropod biramous, both rami filiform, multi-segmented. Basis with row of outer setae; exopod one-fifth as long as endopod, with 7 segments; endopod elongate, with about 40 segments.

Male. Slightly larger than female (dissected specimen 10.3 mm long); sexual dimorphism shown by an increased number of aesthetascs on the antennule, and large ventral penial tubercle on pereonite 6. Cheliped more robust, basis 1.5 times as long as wide; carpus subtriangular, only slightly longer than wide; propodus stout, longer than carpus plus merus, fixed finger with conspicuous proximal tooth-like apophysis on cutting edge; dactylus with smaller proximal apophysis on cutting edge.

Etymology. From the Greek *kolobos* – shortened, with reference to the articles of the antennular and antennal peduncles and mandibular palp, and the pereopod bases, being conspicuously shorter than those of the genotype *S. setosus* (Lang, 1968).

Remarks. Of the numerous species attributed to the genus *Apseudes sensu lato* (including *Spinosapseudes* Guțu, 1996 and *Tuberapseudes* Băcescu and Guțu, 1971), only 13 have a conspicuous spine-like apophysis anterior to the branchial chamber, and, apart from *A. bruneinigma* Bamber, 1999, all have a telson at least twice as long as wide and anterolateral spine-like apophyses on pereonites from 3 to 6. Only 5 of these, *A. abyssalis* Błażewicz-Paszkowycz and Larsen, 2004, *A. rotundifrons* Băcescu, 1981, *A. tenuimanus* Sars 1882, *A. (Tuberapseudes) echinata* Sars 1882, and *A. setosus* Lang, 1968, have no dorsodiscal spine on the merus of pereopod 1, and of these only *A. setosus* has the combination of a strongly pointed rostrum, more than 5 segments in the antennule accessory flagellum, and ventral but no dorsal setae on the pleopod basis.

Guțu (1996) erected the genus *Spinosapseudes* for *A. setosus* Lang, 1968 (until now monotypic), named after the large spine-like apophyses on the cephalon and pereonites, and on the coxae of the posterior pereopods, and distinguished by the morphology of pereopod 1 being more similar to that of *Carpoapseudes* species, rather than the fossorial (i.e. apparently adapted for digging) appearance of this pereopod in *Apseudes sensu stricto* (as in the type species *A. talpa* Montagu, 1808).

While the present species shows a more fossorial morphology to its pereopod 1, it has numerous features in common with *Spinosapseudes setosus*, notably the coxa 1 apophyses of the posterior pereopods, but also the plumose dorsal setae on pereopod 6, the spine-like apophyses of pereonites 3 to 6 and of the cheliped merus, the chaetotaxy of the mouthparts and pleopods, and the number of segments in antennular and antennal flagella and uropod exopod. *Spinosapseudes colobos* sp. nov. is accordingly placed in the same genus, but, in addition to the pereopod 1 morphology, is clearly distinguished from *S. setosus* by the proportionately more compact articles of the antennular and antennal peduncles, the mandibular palp and the pereopods. Both species are only known from the Tasman Sea – Bass Strait region.

Genus *Gollumudes* Bamber, 2000

***Gollumudes larakia* (Edgar, 1997)**

Apseudes larakia Edgar, 1997, 279–286, figs 1–3.

Gollumudes larakia. Guțu, 2006: 97–99.

Material. 4 individuals (J47131), Australia, Tasmania, eastern Bass Strait, 37 km NNE of Eddystone Point (40°43.48'S, 148°37.12'E), 67 m, 14/11/1981, (BSS 164), R.S. Wilson; 1 individual (J53143), 50 m south of Twin Reefs, Venus Bay (38°41'S, 145°39'E), 9 m, 07/03/1982, (CPA 7), M. McDonald; 1 individual (NVM J55756), western Bass Strait, 30 km SSW of Warrnambool (38°38.12'S, 142°35.00'E), 59 m, 20/11/1981, (BSS 188), R.S. Wilson; 3 individuals (NVM J55757), western Bass Strait, 15 km S of Port Fairy (38°32.00'S, 142°28.36'E), 52 m, 20/11/1981, (BSS 187), R.S. Wilson; 1 individual (NVM J55760), western Bass Strait, 15 km S of Port Fairy (38°32.00'S, 142°28.36'E), 52 m, 20/11/1981, (BSS 187), R.S. Wilson; 2 individuals (NVM J55764), western Bass Strait, King I., 59 km W of Stokes Point (40°07'S, 143°14'E), 185 m, 11/10/1980, (BSS 104), G.C.B. Poore; 2 individual (NVM J55766), Victoria, western Bass Strait, 5 km S of Point Reginald (38°48.00'S, 143°14.30'E), 47 m, 20/11/1981, (BSS

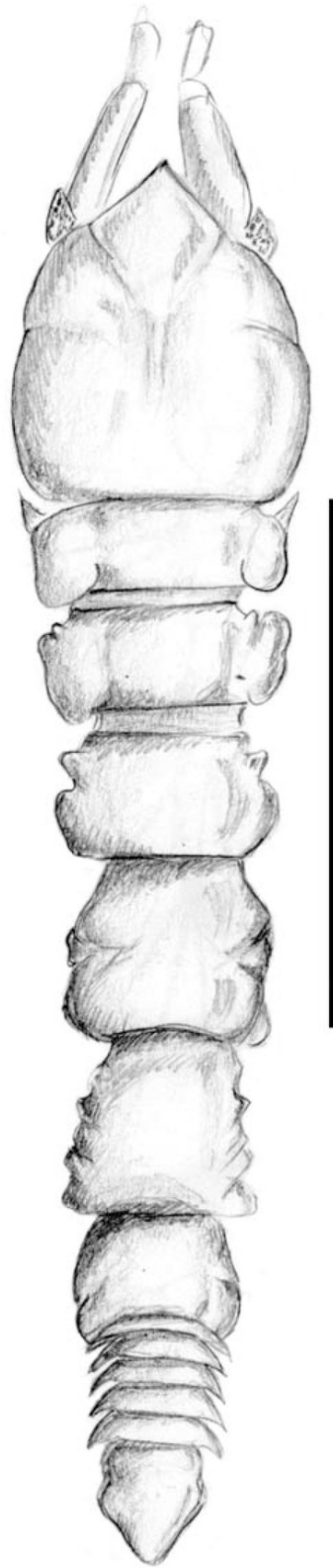


Figure 14. *Pugiodactylus syntomos* sp.nov., holotype female, dorsal. Scale line = 1 mm.

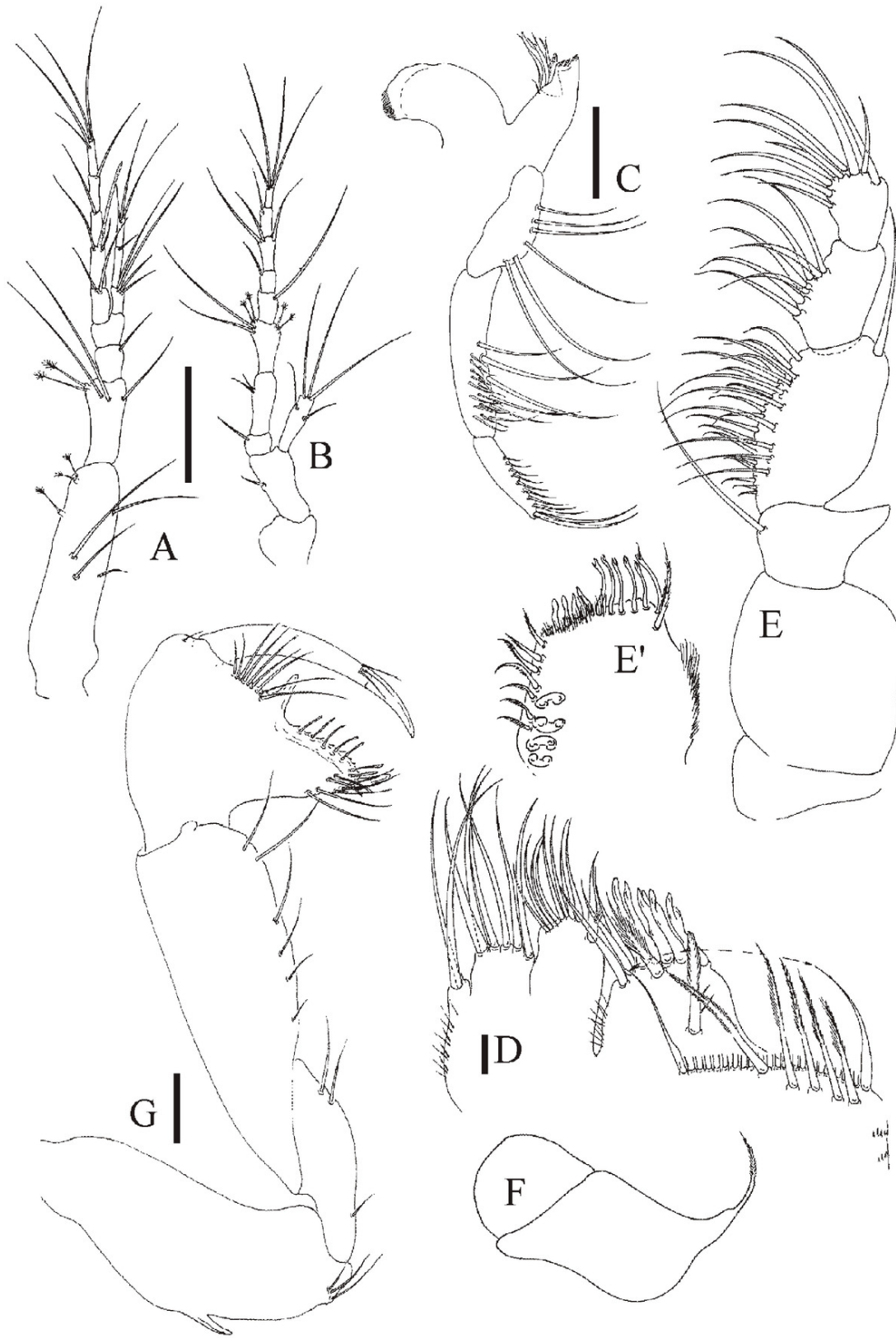


Figure 15. *Pugiodactylus syntomos* sp. nov., A, antennule; B, antenna; C, mandible; D, maxilla; E, maxilliped; E', maxilliped endite; F, epignath; G, cheliped. Scale line = 0.1 mm.



Figure 16. *Pugiodactylus syntomos* sp. nov., A, cheliped; B to E, pereopods 1 to 4 respectively; F, pereopod-6; G, pereopod-5; H, pleopod; I, uropod. Scale line = 0.1 mm.

185), R.S. Wilson; 1 individual (NVM J55758), western Bass Strait, 5 km SW of Bluff Point (40°48.06'S, 144°38.00'E), 42 m, 02/02/1981, (BSS 126 G), M.F. Gomon; 1 individual (NVM J55759), 50 m E of Petrel Rock, Venus Bay (38°39'S, 145°42'E), 8 m, 05/03/1982, (CPA 1) M. McDonald and M.F. Gomon; 5 individuals (NVM J55761), 1 km E of Harmers Haven, 500 m offshore (38°34'S, 145°40'E), 11 m, 06/03/1982, (CPA 14), C. Larsen and G. Barber, 1 individual (NVM J55762), 1 km E of Harmers Haven, 300 m offshore (38°34'S, 145°40'E), 6 m, 06/03/1982 (CPA 15), R.S. Wilson and C. Larsen; 1 individual (NVM J55763), Cape Paterson E side (38°41'S, 145°36'E), 6 m, 05/03/1982, (CPA 12), R.S. Wilson, G. Barber, et al.; 1 individual (NVM J55765) Bennison Channel 1.0 km S of Granite I. (38°49'S, 146°23'E), 6.0 m, 23/11/1983, (CIN 28), G.J. Morgan.

Remarks. Guțu (2001) corrected the description of this species, pointing out that, contrary to that description, both cheliped and pereopod 1 have an exopodite. Edgar (1997) recorded large numbers of this species in shallow water (1–8 m depth) around Darwin, Northern Territory, in association with algae and coral rubble. Guțu (2006) and Bamber (in press) recorded specimens from Moreton Bay, Queensland, also in shallow water. The present material extends the range of this species further south to Bass Strait, and to substantially greater depth.

Subfamily **Pugiodactylinae** Guțu 1995

Genus **Pugiodactylus** Guțu 1995

Pugiodactylus syntomos sp. nov.

Figures 14–16

Material. Female, holotype (NVM J55749), Australia, Tasmania, western Bass Strait, 59 km W of Stokes Point, King I. (40°07'S, 143°14'E), 185 m, 11/10/1980, (BSS 104 G), G.C.B. Poore. Paratypes: 2 females, 1 male (NVM J47118), same locality as holotype; 1 specimen dissected on slides (NVM J55941), western Bass Strait, King I., 59 km W of Stokes Point (40°07'S, 143°14'E), 185 m, 11/10/1980 (BSS 104), G.C.B. Poore; 4 individuals (NMV J55786), eastern Bass Strait, 70 km ENE of North Point, Flinders I. (39°28.24'S, 148°41.48'E), 110 m, 28/03/1979, (BSS 35), G.C.B. Poore; 1 female with rudimental oostegites, 3 males, 2 juveniles, 1 manca, (NMV J55787), eastern Bass Strait, 85 km NE of North Point, Flinders I. (39°02.24'S, 148°30.36'E), 120 m, 15/11/1981, (BSS 169), R.S. Wilson; 1 ovi female, 1 male, (NMV J55788), Victoria, western Bass Strait, 5 km S of Point Reginald, Victoria (38°48'S, 143°14.30'E), 47 m, 20/11/1981, (BSS 185), R.S. Wilson; 1 ovi females, 1 male (NMV J55789), 50 m S of Twin Reefs, Venus Bay (38°41'S, 145°39'E), 9 m, 07/03/1982, (CPA 7), M. McDonald.

Description of female. Body (fig. 14), dorsoventrally flattened, elongate, holotype 2.6 mm long (tip of rostrum to posterior of pleotelson), 5.6 times as long as wide, narrower posteriorly. Cephalothorax subcircular, slightly longer than wide, naked, anterior margin with conspicuous triangular pointed rostrum. Eyes and eyelobes present. 6 free pereonites; pereonite 1 shortest, 0.3 times as long as cephalothorax, lateral margins straight, coxal apophyses of pereopod 1 evident; pereonite 2 1.25 times as long as pereonite 1 with rounded anterolateral tubercle on each side; pereonite 3 with anterolateral spine-like apophyses, 1.5 times as long as pereonite 1; pereonite 4 slightly longer than pereonite 3, subrectangular; pereonite 5 longest, twice as long as pereonite 1; pereonite 6 simple, narrowest, just longer than pereonite 1 (all

pereonites respectively 2.7, 2.1, 1.5, 1.2, 1.0 and 1.6 times as wide as long). Pleon 2.5 times as long as pereonite 6, of 5 free subequal pleonites bearing pleopods plus pleotelson; pleonites more than 4 times as wide as long, laterally expanded by spiniform apophyses. Pleotelson pentagonal, half length of whole pleon, 1.2 times as long as wide.

Antennule slender, peduncle article 1 elongate, 4 times as long as wide, with 2 longer dorsal simple setae, 2 shorter inner simple setae, and 3 subdistal outer penicillate setae; article 2 0.35 times as long as article 1, distally with 3 simple setae at least as long as article and 2 outer penicillate setae; article 3 less than half length of article 2 with inner distal seta; article 4 two-thirds as long as article 3, naked. Main flagellum of 5 segments, segment 2 with 1 aesthetasc; accessory flagellum of 3 segments.

Antenna proximal article-4 naked; article 2 with simple inner seta and bearing elongate squama with 5 marginal setae; peduncle article 3 shorter than wide, with 1 inner seta; article 4 slightly longer than article 5, and 3 times as long as article 3; article 5 with paired elongate inner distal simple setae, and outer and inner distal pairs of penicillate setae. Flagellum of 5 segments.

Mouth parts. Labrum not seen. Mandible with strong, crenulated pars incisiva, small lacinia mobilis, setiferous lobe with 5 mainly bifurcate setae, pars molaris stout with denticulate distal margin; mandibular palp of 3 articles, article 1 3 times as long as wide with 6 ventral setae, distal 4 setae longer than article; article 2 slender, 1.3 times as long as article 1, with 2 parallel rows of 5 longer and 9 shorter simple setae in distal half; article 3 0.6 times as long as of article 2 with 9 inner simple setae increasing in length distally, 2 longer distal setae as long as article. Maxillule (not figured) outer endite with setose margins and 10 distal spines, inner endite with outer apophysis and 4 plumose distal spines. Maxilla with fine setae on outer margin; outer lobe of moveable endite with 2 simple setae on outer margin and 6 simple distal setae; inner lobe of movable endite with simple distal setae; outer lobe of fixed endite with 3 simple setae, 5 blunt spines (inner 3 bifurcate) and 2 subdistal finely denticulate spines; inner lobe of fixed endite with rostral row of 22 setae guarding 5 longer plumose setae. Labium not seen. Maxilliped basis naked; palp article 1 with single inner distal seta as long as article 2, and outer blunt, triangular apophysis; palp article 2 longer than wide, with 2 rows of numerous filtering setae on inner margin, 1 outer distal seta longer than article 3; palp article 3 nearly twice as long as wide, with 7 inner simple setae; palp article 4 with 9 inner and distal setae. Endite with simple distal setae, slender outer bifurcate spines and stout, spatulate, inner spines; 4 coupling hooks. Epignath large, cup-shaped, with distally setulose distal seta.

Cheliped basis twice as long as wide, dorsally naked, ventrally with midventral apophysis and 1 longer and 1 shorter distal setae; exopodite present, 3 articulated, distal article with 4 to 6 marginal setae. Merus elongate, with single proximal and 2 distal ventral setae. Carpus 2.5 times as long as wide, with 2 shorter proximal and 3 longer distal simple setae along ventral margin. Chela as long as carpus; propodus wide, with 2 dorsal setae, 3 longer distal setae at insertion of dactylus, fixed finger with 3 ventral setae, 2 subdistal setae and row of 6 slender setae along cutting edge, cutting edge crenulated and armed

with fine spinules and small, proximal tooth-like apophysis (stronger in male); dactylus longer than fixed finger, with fine setae but no apophyses on cutting edge, distal claw pointed.

Pereopod-1 with pronounced spine-like apophysis on coxa. Basis 4.2 times as long as wide, with 3 proximal penicillate setae on dorsal margin, ventrally subdistal and distal simple setae; exopodite present, 3-articled, article 3 with 5 distal setae. Ischium with 2 simple ventrodiscal setae. Merus 0.3 times as long as basis, wider distally, with ventrodiscal spine, 4 ventral setae and 1 dorsodiscal simple seta. Carpus stout, nearly twice as long as merus, with 4 ventral marginal spines interspersed with simple setae, dorsally with single central and paired distal simple setae. Propodus as long as merus, ventral margin with 4 spines interspersed with simple setae, single dorsodiscal spine and seta. Dactylus and unguis fused, naked, 1.4 times as long as propodus.

Pereopod-2 more slender. Basis 4.7 times as long as wide; ischium slightly longer than wide, with single dorsal and ventral setae. Merus 0.6 times as long as carpus, with 4 ventral setae and single dorsodiscal seta. Carpus with 3 ventral spines in distal 0.5 interspersed with simple setae, dorsal setae as pereopod 1. Propodus as long as carpus, with 5 slender ventral spines, 3 dorsodiscal setae and distal pectinate spine. Dactylus with fine distal seta, unguis slender, shorter than dactylus, the 2 together 0.7 times as long as propodus.

Pereopod 3 similar to pereopod 2.

Pereopod 4 similar to pereopod 2 but basis with midventral penicillate seta, merus proximally naked, merus half length of carpus, carpus with 8 slender ventral spines in 2 rows; propodus with dorsodiscal tuft of 5 finely denticulate setae.

Pereopod 5 similar to pereopod 2 but carpus without spines.

Pereopod 6 similar to pereopod 5, but basis with dorsoproximal group of 5 penicillate setae, propodus with row of 8 ventral leaf-like spines in distal half.

Pleopods 5 pairs, all alike, but progressively smaller towards the posterior; basis attenuated, naked; slender rami each with 2 plumose distal setae, outer ramus longer and with additional single dorsal plumose seta.

Uropod biramous, both rami filiform, multi-segmented. Basis with 1 inner distal seta; exopod 0.3 times as long as endopod, with 4 segments; endopod elongate, with 15 segments.

Male. Essentially as female, small penial tubercle ventrally on pereonite 6; dimorphism of the cheliped, male cheliped being slightly more robust, with larger tooth proximal of midpoint of cutting edge of fixed finger, dactylar setal row of 9 setae.

Etymology. From the Greek – *syntomos* – meaning shortened, as, compared with other species in the genus, are the cheliped carpus, pereopod 1 merus and carpus, the antenna and the rostrum of the present species.

Remarks. There are 4 previously described species of *Pugiodactylus*, all from the general region of Australasia, *P. antarcticus* (Beddard, 1886) from the Antarctic at 8–232 m depth, *P. agarthus* Guțu and Iliffe, 1997 from Niue I., South Pacific in 2 m, *P. coralensis* Guțu, 1998, from Malaysia (1–3 m depth), and *P. daicovicii* Guțu, 2006, from Moreton Bay, Australia (depth not given, probably between 5 and 15 m). Unlike the present species, all the others have a conspicuous slender pointed tip to the rostrum and slender articles and squama on the antenna. Only *P. agarthus*

has as few segments in the uropod exopod as *P. syntomos* sp. nov., but that species has far more segments in the antennular flagella.

Overall, and perhaps not surprisingly, *P. syntomos* is most similar to the other eastern Australian species, *P. daicovicii* (of which no description is given for the mouthparts, unfortunately), but a clear distinction, other than the robustness of the merus and carpus of pereopod 1 in the present species (merus as long as its distal width, compared with twice as long in *P. daicovicii*; vide Guțu, 2006), is that *P. daicovicii* has no pleopods. The stout chela of *P. syntomos* is typical of the genus, but the cheliped carpus of this species is far shorter than those of the other species, none of which have the elongate outer distal seta on article 2 of the maxilliped palp (not known for *P. daicovicii*).

Family **Whiteleggiidae** Guțu 1972

Genus **Whiteleggia** Lang 1970

Whiteleggia multicarinata (Whitelegge, 1901)

Apseudes multicarinata. Whitelegge, 1901: 203, 204–208

Whiteleggia multicarinata. Lang, 1970, 605–615, figs 3–8.

Material: 19 females, 8 males (NVM J55755). Australia, Tasmania, central Bass Strait, 20 km NNE of North Point, Flinders I. (40°38'S, 145°23'E), 37 m, 04/11/1980, (BSS 117), M.F. Gomon and G.C.B. Poore; 33 females, 17 males (NVM J47123 eastern Bass Strait, 63 km E of North Point, Flinders I. (39°44.48'S, 148°40.36'E), 124 m, 14/11/1981, (BSS 167), R.S. Wilson; 2 males, 1 female (NVM J53139), eastern Bass Strait, 63 km E of North Point, Flinders I. (39°44.48'S, 148°40.36'E), 124 m, 14/11/1981, (BSS 167), R.S. Wilson.

Remarks. The only previous published records of this species are of the type material, off New South Wales, Australia, at 37 to 108 m depth, and further specimens described by Lang (1970) from Dr Th. Mortensen's Pacific Expedition in 1914. Lang (1970) cited the sampling site as off South Africa (35°05'S 15°05'E), but those coordinates are a misprint: the sampling on that date was from the *Endeavour*, at 37°05'S 150°05'E, on sand and mud in depths of 70 to 100 m, i.e. off Merimbula, New South Wales (see numerous references to the sample site in, for example, Augener, 1924). Thus, reassuringly, all records of this species are from off south-eastern Australia. The present material extends the range further south and west, and into slightly deeper water. Much of the present material was collected together with the following species; distinction of the females is particularly difficult, the only reliable feature being the short peduncular articles of the antenna in *Pseudowhiteleggia typica*.

Genus **Pseudowhiteleggia** Lang, 1970

Pseudowhiteleggia typica Lang, 1970

Pseudowhiteleggia typica Lang, 1970, 616–626, figs 9–15.

Material. 24 females (8 ovigerous), 10 males (NMV J47121), Australia, Victoria, central Bass Strait, 65 km S of Cape Schanck (39°08.18'S, 144°43.54'E), 66 m, 23/11/1981, (BSS 201 G), R.S. Wilson; 17 females (NMV J53138), Tasmania, central Bass Strait, 20 km NNE of North Point, Flinders I. (40°38'S, 145°23'E), 37 m, 04/11/1980 (BSS 117), M.F. Gomon and G.C.B. Poore, 24 females, 9 males (NMV J55754),

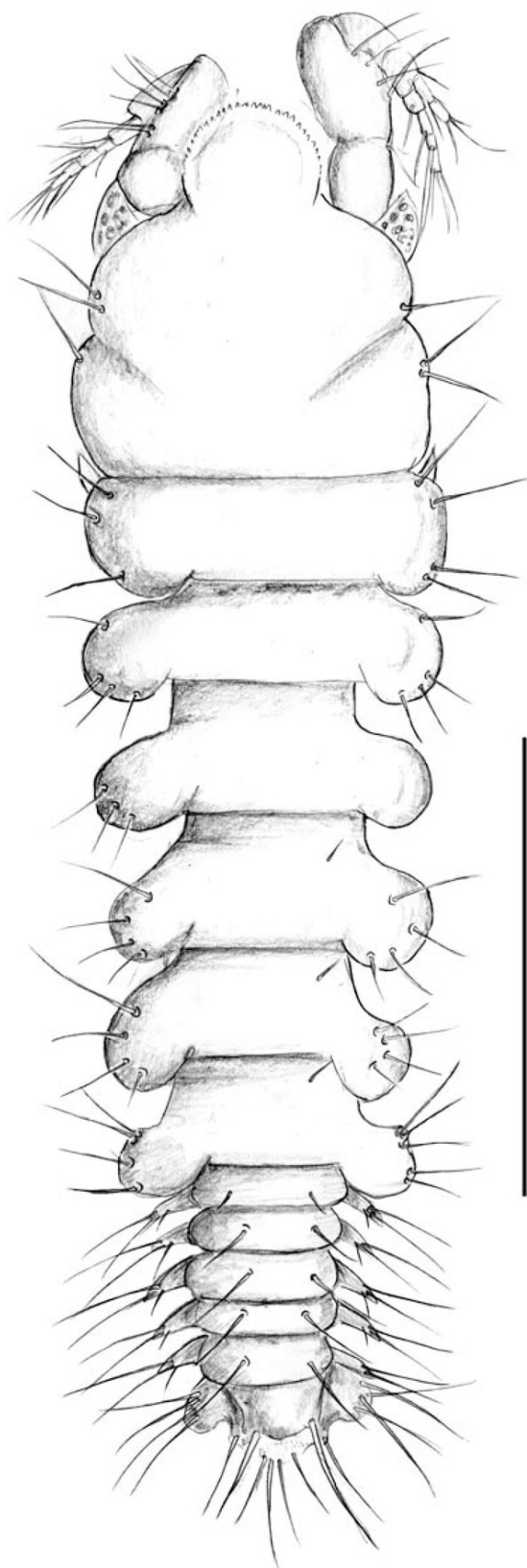


Figure 17. *Labraxeudes heliodiscus* gen. et sp. nov., holotype female, dorsal. Scale line = 1mm.

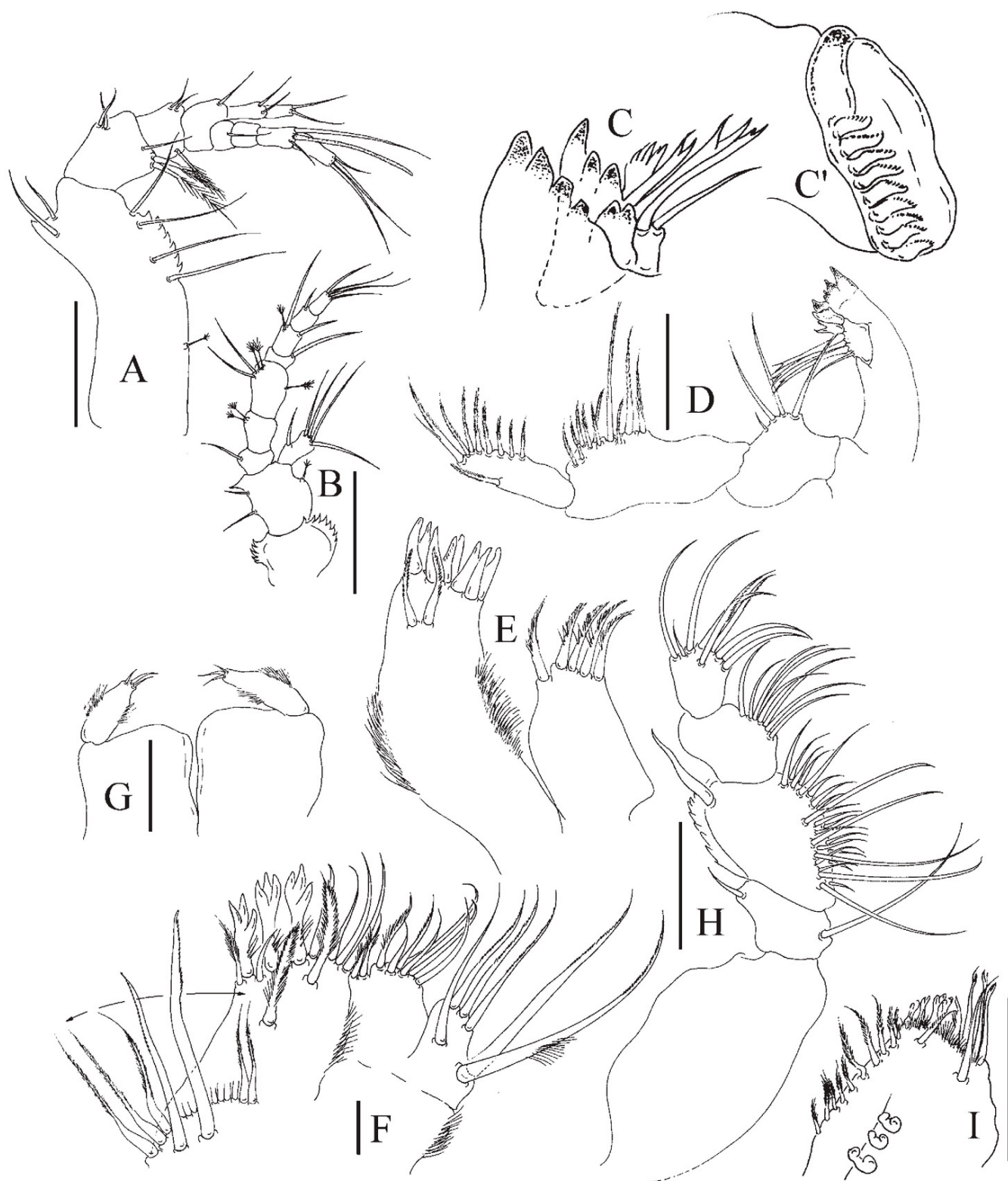


Figure 18. *Labraxeudes heliodiscus* gen. et sp. nov., A, antennule; B, antenna; C, left mandible, with detail of pars incisiva, lacinia mobilis, setal lobe and molar process; D, right mandible; E, maxillule; F, maxilla; G, labium; H, maxilliped; I, maxilliped endite. Scale line = 0.1 mm.

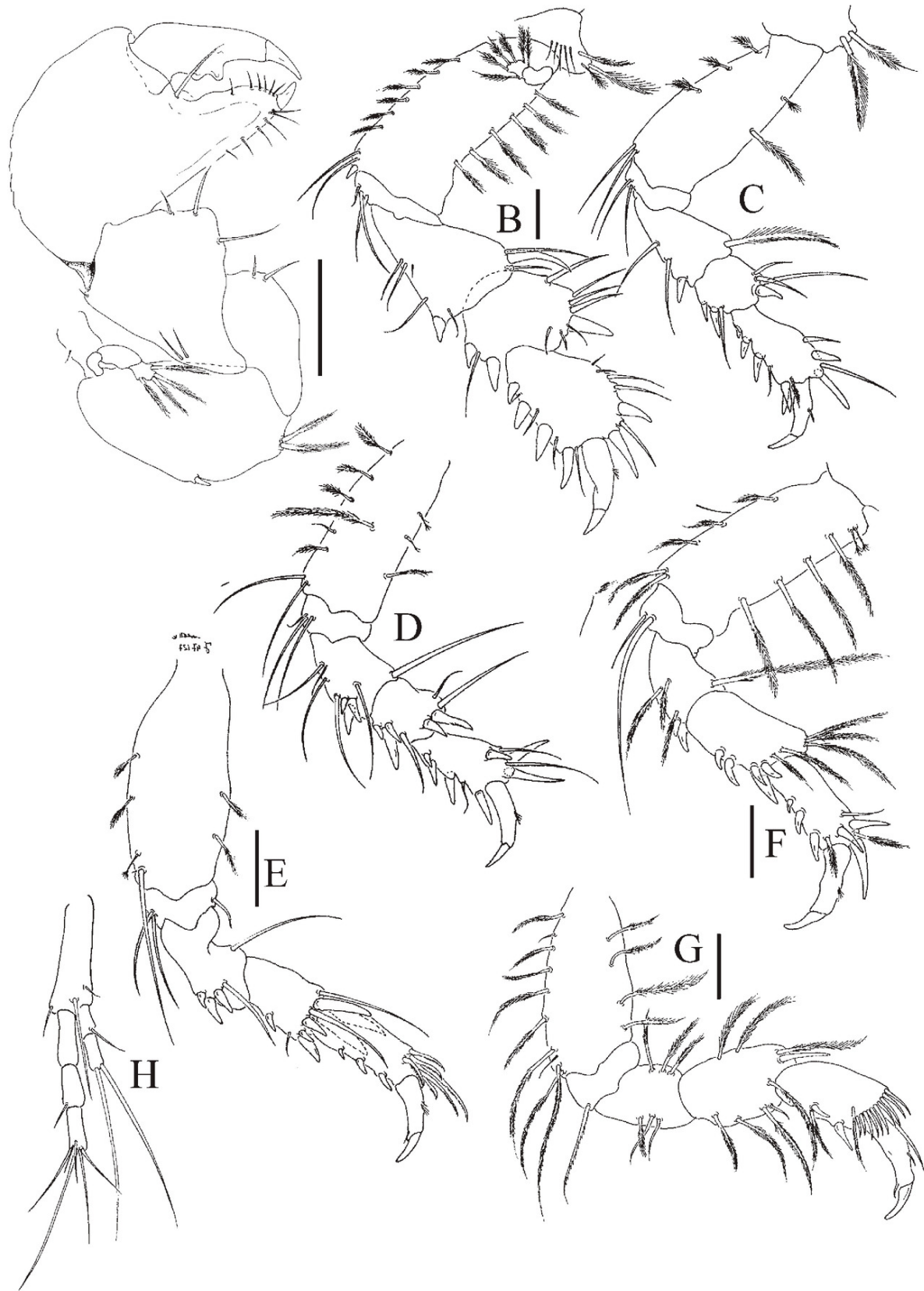


Figure 19. *Labraxeudes heliodiscus* gen. et sp. nov., A, cheliped; B–G, pereopods 1–6 respectively; H, uropod. Scale line = 0.1 mm.

western Bass Strait, 35 km SSW of Cape Otway, Victoria (39°07.00'S, 143°14.36'E), 84 m, 20/11/1981, (BSS 183), R.S. Wilson.

Remarks. This species would seem not to have been recorded since the type material described by Lang, collected from *Galathea* station 544 at 50 m depth off the east coast of Australia (29°57'S 153°22'E).

Family **Metapseudidae** Lang 1970

Subfamily **Metapseudinae** Lang 1970

Genus ***Labraxeudes*** gen. nov.

Diagnosis. Metapseudid with conspicuous rostrum, lateral simple setae on cephalon and pereonites, denser simple setae on pleonites and pleotelson, pleotelson with large, rounded lateral apophyses; antennule compact, without spine-like apophyses along inner margin of proximal peduncle article, flagella of few articles; antenna basal peduncle articles compact, little or not longer than wide, with squama; mandible with palp; cheliped robust, with exopodite; pereopod 1 with exopodite, coxa with rounded spine-like apophysis, basis with plumose setae but without dorsal apophyses; 5 pairs of pleopods; uropods of few segments.

Etymology. From - *labrax* - the Greek for a sea-bass (also the specific name of the sea-bass, *Dicentrarchus labrax*), a pun on Bass Strait, the region of the type locality, and a suffix from *Apseudes*.

Type species. *Labraxeudes heliodiscus* sp. nov. by original designation.

Remarks. This genus has morphological similarities with *Apseudomorpha* Miller, 1940, *Cyclopoapseudes* Menzies, 1953, and *Julmarichardia* Guțu 1989, lying somewhere between the last 2; the first 2 of these genera are without exopodites on the cheliped or pereopod 1, and numerous details of the rostrum, pereopod and uropod morphology are inconsistent, although the unusual pleotelson morphology mirrors that of species of *Cyclopoapseudes*. *Julmarichardia* species have a slightly similar rostrum morphology and do have exopodites on the cheliped and pereopod 1; however, that genus is characterized by having the propodus of pereopods 2 to 6 substantially longer than the carpus, by the proximal antennule peduncle article having inner spine-like apophyses, by the basis of pereopod 1 having marginal apophyses dorsally and by a slender antenna.

The combination of substantial rostrum, exopodites on the cheliped and pereopod 1, compact antenna, short uropod, simple pereonite setation, compact propodi, dorsum of pereopod 1 basis without apophyses, robust cheliped and antennule peduncle without inner row of conspicuous denticulation shown by *Labraxeudes* gen. nov. is unique amongst Metapseudinae.

Labraxeudes heliodiscus sp. nov.

Figures 17–19

Material. Brooding female, holotype (NVM J47127), Australia, Victoria, Red Rock, Phillip I. (38°28'S, 145°14'E), 29/09/1974, W.F. Seed, B.

Leonard, B and R. Lennie; 2 females, paratypes (NVM J55750), 1 dissected on slides (NVM J55940) same sample as holotype.

Description of female. Body compact, holotype 2.9 mm long (tip of rostrum to posterior of pleotelson), 3.8 times as long as wide, narrower posteriorly. Cephalothorax subrectangular, as long as wide including rostrum (1.3 times as wide as long without rostrum), anterior margin with conspicuous subcircular, flattened rostrum with finely denticulate anterior margin. Eyes present on robust eyelobes; paired lateral setae behind eyelobes and on laterally swollen branchial chambers. 6 free pereonites, all with lateral margins uniformly convex, appearing as posterolateral rounded apophyses on pereonites 3 to 6, each with 3 or 4 conspicuous simple setae; pereonite 1 about one-third as long as cephalothorax; pereonite 2 shortest, 0.9 times as long as pereonite 1; pereonites 3 and 4 subequal (4th longest), 1.3 times as long as pereonite 1; pereonites 5 and 6 subequal, as long as pereonite 1 (all pereonites respectively 3.4, 3.8, 2.6, 2.4, 2.9 and 2.7 times as wide as long). Pleon 2.6 times as long as pereonite 1, of 5 free subequal pleonites bearing pleopods plus pleotelson; pleonites dorsally convex, more than 3 times as wide as long, with paired mid-dorsal setae, laterally expanded by spiniform apophyses each bearing 3 simple setae distally. Pleotelson distally rounded, one-quarter as long as whole pleon, expanded laterally into rounded apophyses bearing long simple setae, thus 2.5 times as wide as long, long paired dorsal simple setae in posterior half, distal margin with 3 long simple setae on each side.

Antennule peduncle article 1 arcuate, compact, 2.7 times as long as wide, inner margin with triangular subdistal apophysis bearing 2 simple setae, outer margin with proximal penicillate seta, fine denticulations in distal 3rd with row of 4 adjacent simple setae; article 2 one-third as long as article 1, with outer distal pair of plumose setae, dorsodistal simple seta and inner subdistal pair of shorter simple setae; article 3 half length of article 2, with outer distal plumose seta and inner subdistal pair of shorter simple setae; article 4 0.7 times as long as article 3, with inner distal seta. Main flagellum of 4 segments, segment 3 bearing single aesthetasc; accessory flagellum of 2 segments, each with 2 distal setae.

Antenna peduncle article 1 with inner denticulate apophysis and rounded denticulate outer margin; article 2 1.4 times as long as article 1, inner margin bearing pair of simple setae and subdistal spinous apophysis, outer margin with penicillate seta and distal squama with 5 simple marginal setae; peduncle article 3 shorter than wide, one-quarter the length of article 2, with 1 inner seta; article 4 twice as long as article 3, with paired inner penicillate setae; article 5 slightly longer than article 1, with inner and outer penicillate setae and paired inner simple setae. Flagellum of 4 segments.

Mouth parts. Labrum not seen. Left mandible bearing strong, crenulated pars incisiva, lacinia mobilis robust with 5 strong denticulations, setiferous lobe with 1 compound, 3 bifurcate and 1 simple setae, pars molaris robust, blunt, margin with row of finely denticulate teeth; mandibular palp of 3 articles, article 1 just longer than wide with 4 setae on inner rounded apophysis, article 2 1.75 times as long as article 1 with 3 longer and 7 shorter finely denticulate setae in distal half; article 3 two-thirds length of article 2 with 8 inner finely denticulate setae in distal half and

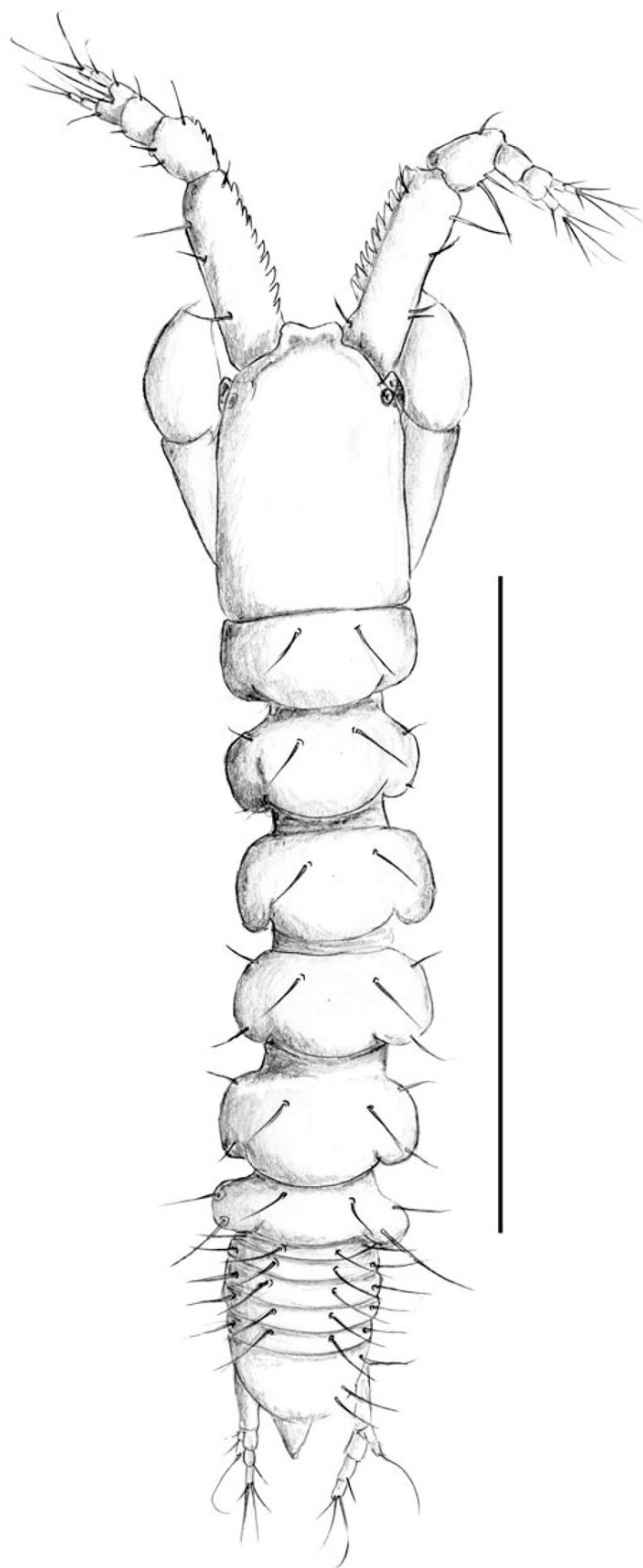


Figure 20. *Metapseudes wilsoni* sp. nov.

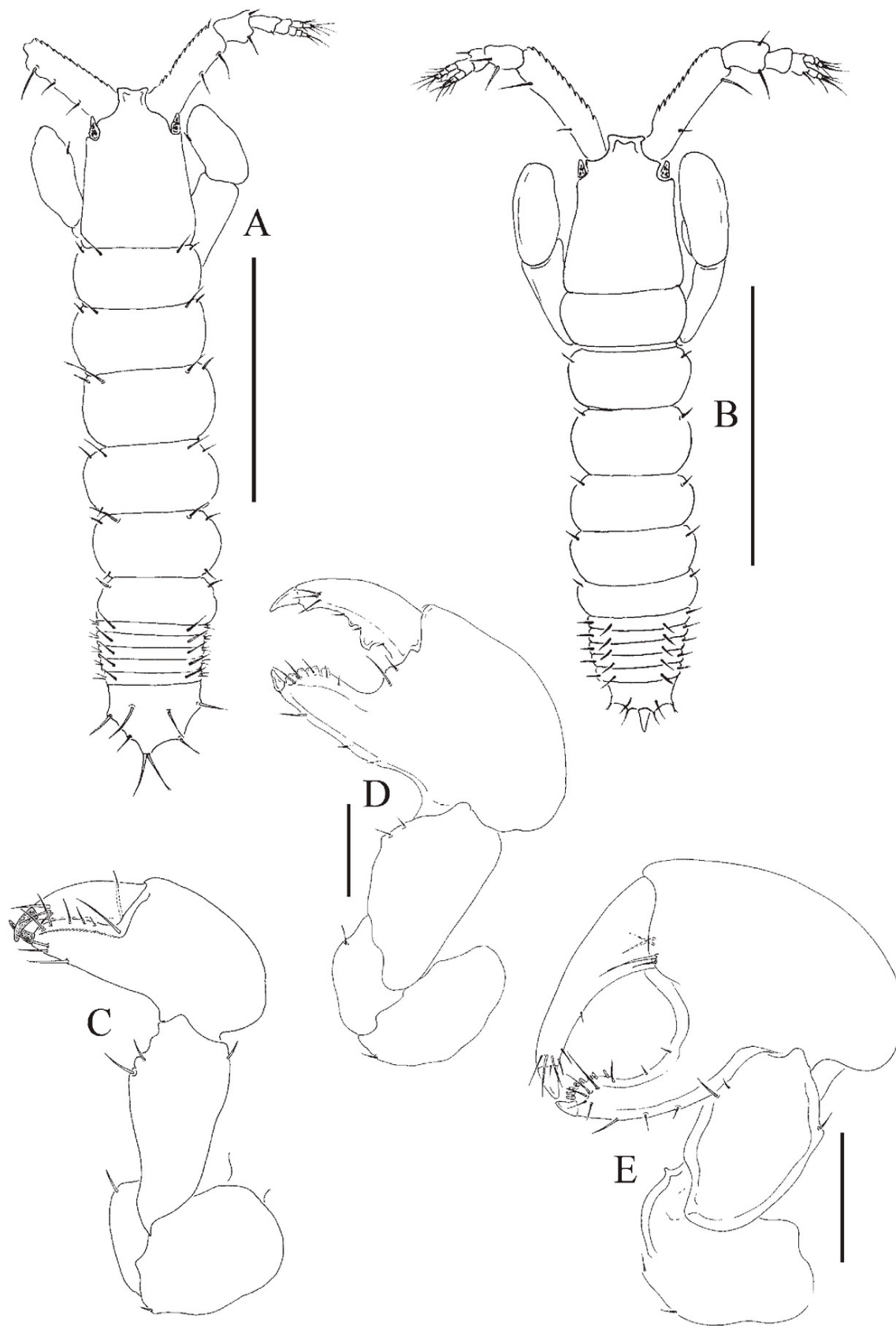


Figure 21. *Metapseudes wilsoni* sp. nov., A, holotype female, dorsal; B, male, dorsal; C, cheliped of female; D, cheliped of subadult male; E, cheliped of mature male. Scale line = 2.5 mm.

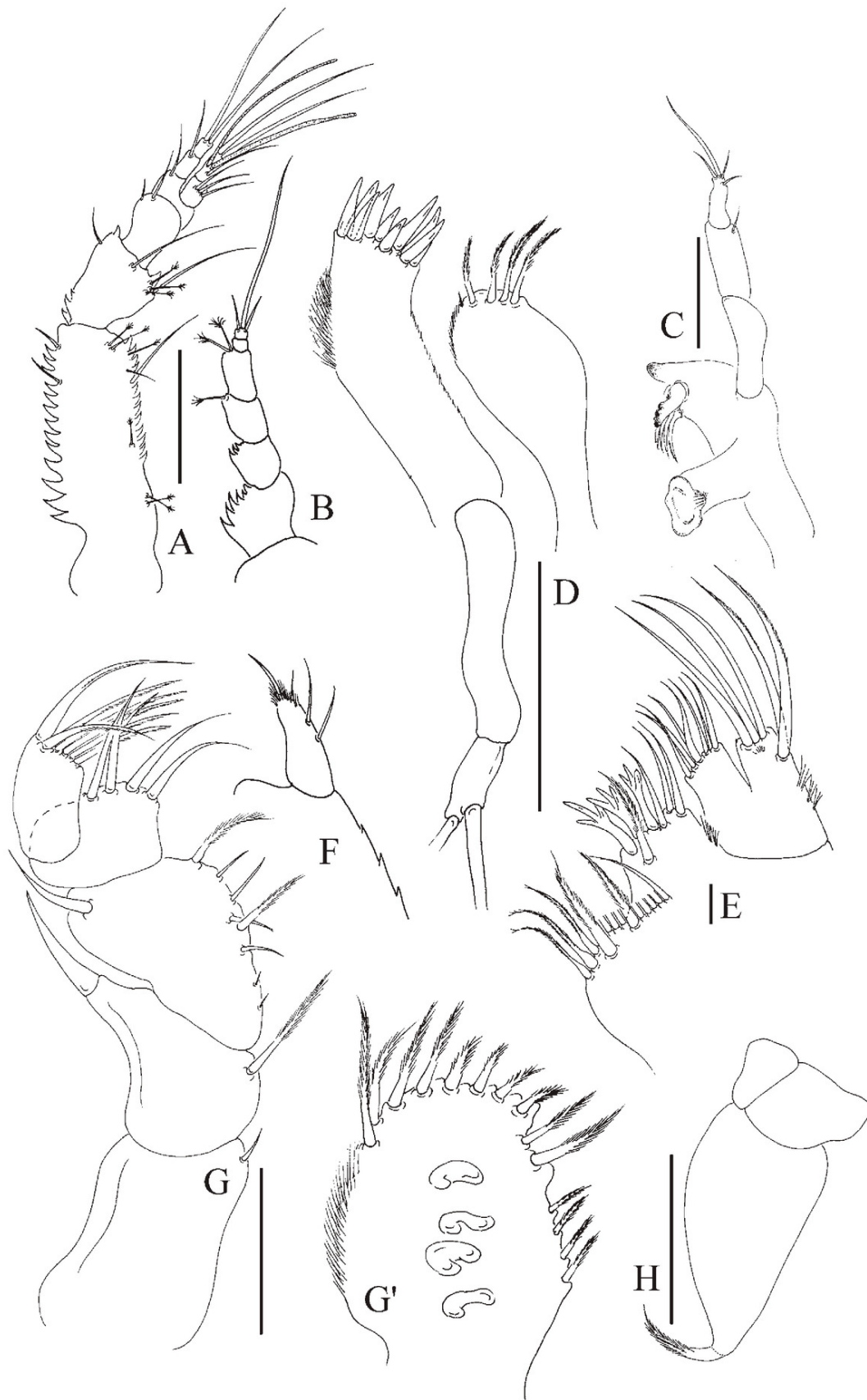


Figure 22. *Metapseudes wilsoni* sp. nov., A, antennule; B, antenna; C, left mandible; D, maxillule; E, maxilla; F, labium; G, maxilliped; G', maxilliped endite; H, epignath. Scale line = 0.1 mm.

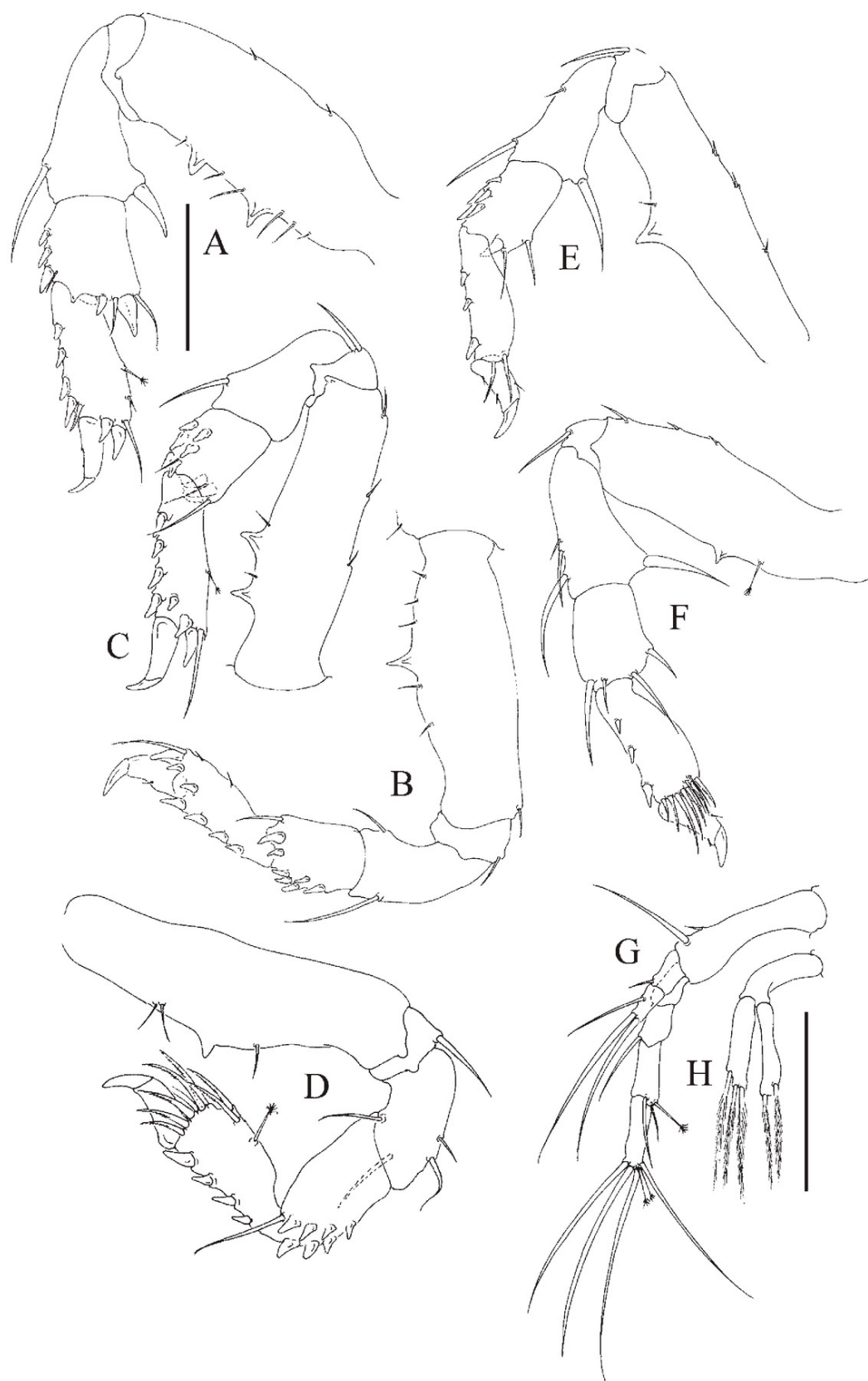


Figure 23. *Metapseudes wilsoni* sp. nov., A–F, pereopods 1–6 respectively; G, pleopod; H, uropod. Scale line = 2.5 mm.

1 outer subdistal seta. Right mandible as left. Maxillule inner endite with 5 finely setulate distal setae; outer endite with 8 distal spines and 2 subdistal setae, outer and inner margins finely setose; palp lost in dissection. Maxilla with fine setae on outer margin; outer lobe of moveable endite with 3 simple subdistal setae (1 mesially setulose) and 3 simple distal setae; inner lobe of moveable endite with 6 simple and 3 setulose setae; outer lobe of inner endite with 4 outer simple setae, 3 stout trifurcate spines, and 1 inner and 2 subdistal setulose setae; inner lobe of fixed endite with rostral row of 14 setae guarding 2 longer setae. Labium with smooth outer margin, palp with fine lateral setules and 3 simple distal spines. Maxilliped basis naked; palp article 1 with single distal seta on outer margin and long simple inner seta longer than article 2; palp article 2 longer than wide, with rows of numerous short setae and 6 longer simple setae along inner margin, outer margin denticulate and with single distal seta; palp article 3 as long as wide, with 8 simple setae along inner margin; palp article 4 with 7 distal setae and 1 subdistal seta. Endite with flagellate inner caudodistal seta and stout distal spines along setulose margin and three coupling hooks. Epignath not seen.

Cheliped robust, basis 1.8 times as long as wide, dorsally naked, ventrally with midventral spine and 2 plumose distal setae; exopodite present, 3-articled, article 2 naked, article 3 with 4 plumose setae. Merus subrectangular, with paired ventrodiscal simple setae. Carpus 1.25 times as long as wide, with 3 simple setae along ventral margin. Chela fingers shorter than palm, ventral margin of fixed finger with 6 setae; 1 seta near articulation of fixed finger; cutting edge with row of 6 setae but no apophyses, distal claw stout; dactylus naked with central and proximal apophyses on cutting edge, distal claw pointed.

Pereopod 1 with rounded spine-like apophysis on coxa bearing row of fine setules and 3 distal plumose setae. Basis stout, 2.3 times as long as wide, dorsal margin with 6 plumose setae but no apophyses, ventral margin with 6 plumose setae, 2 subdistal simple setae and ventrodiscal spine; exopodite present, 3-articled, article 2 naked, article 3 with 6 distal plumose setae. Ischium with 1 shorter and 2 longer simple ventrodiscal setae. Merus just over half as long as basis, expanded distally, with 3 ventral simple setae, ventrodiscal spine and adjacent simple seta and curved dorsodiscal spine and 2 adjacent simple setae. Carpus half as long as merus, with 2 ventral spines and intervening simple seta, dorsal margin with numerous simple setae and single dorsodiscal spine. Propodus as long as merus, with 4 ventral spines alternating with simple setae, 5 simple dorsal setae and 2 dorsodiscal spines. Dactylus stout, more than half as long as propodus, with mid-dorsal fine seta; unguis short.

Pereopod 2 more slender. Coxa with 2 plumose setae. Basis 2.6 times as long as wide with 2 dorsal and 3 ventral plumose setae, and 2 simple ventrodiscal setae. Merus 1.6 times as long as carpus, with elongate dorsodiscal plumose seta, 2 ventral simple setae and ventrodiscal spine. Carpus elongate, with 2 ventral spines and ventrodiscal seta, 3 dorsal simple setae and dorsodiscal spine. Propodus just longer than merus, with 4 ventral and 2 dorsodiscal spines with interspersed setae. Dactylus curved, with fine mid-dorsal seta, unguis slender.

Pereopod 3 similar to pereopod 2, but basis with longer mesial plumose seta, merus with 3 ventrodiscal spines, carpus with 2 dorsodiscal spines, propodus with 3 dorsodiscal spines.

Pereopod 4 similar to pereopod 3 but with no mesial seta on basis, longer anterior and posterior distal spines on carpus, propodus with mid-dorsal plumose sensory seta, dorsodiscal tuft of 4 shorter and 2 longer finely denticulate setae; dactylus with fine ventrodiscal seta.

Pereopod 5 similar to pereopod 4, basis with proximal penicillate setae and 4 dorsal plumose setae longer than basis width, 5 ventral plumose setae; ischium with 2 ventrodiscal setae, longer of which exceeds distal edge of merus; merus shorter than carpus, with plumose dorsal seta longer than carpus, 3 shorter ventral plumose setae and 2 ventrodiscal spines; carpus with ventral spines and distal crown of plumose setae; propodus with 2 plumose distal setae.

Pereopod 6 basis with 4 dorsal and 8 ventral plumose setae; merus with 3 dorsal plumose setae and 1 plumose and 2 simple ventral setae; carpus with 4 ventral and 3 dorsal plumose setae and dorsodiscal spine; propodus with 2 ventral spines and crown of 10 shorter and 1 longer distal setae.

Pleopods all similar, all setae plumose; basis with 1 ventral seta, outer ramus with 2 articles, proximal article with single outer seta, distal article with 3 outer and 3 distal setae, inner ramus with 8 setae around entire margin.

Uropod biramous, exopod just longer than proximal segment of endopod, of 2 segments, distally with 2 setae exceeding tip of endopod; endopod of 3 segments.

Etymology. From the Greek: *helios* – the sun, and *discos* – a flat circular plate or disc, with reference to the shape of the rostrum; noun in apposition.

Remarks. See the generic remarks above. The holotype has 8 eggs in its brood pouch.

Genus *Metapseudes* Stephensen 1927

Metapseudes wilsoni sp. nov.

Figures 20–23

Material. Ovigerous female, holotype (NVM J23601) Australia, Victoria, eastern Bass Strait, 11.2 km E of eastern edge of Lake Tyers (37°51.25'S, 148°13.10'E), 32 m, 25/09/1990, (MSL-EG 27), Marine Science Laboratories. Paratypes: 117 specimens including males and ovigerous females (NVM J55751), 2 dissected on slides (NVM J55939); same locality as holotype.

Description of female. Body not particularly dorsoventrally flattened, holotype 2 mm long (tip of rostrum to posterior of pleotelson), 4.9 times as long as wide. Cephalothorax subrectangular, 1.35 times as long as wide, naked; anterior margin with conspicuous square rostrum. Eyelobes and eyes present, with black pigment. 6 free pereonites, lateral margins uniformly convex, with paired anterolateral setae on each side; pereonites 1 and 2 subequal, about one-third as long as cephalothorax; pereonite 3 longest, 1.25 times as long as pereonite 1; pereonites 4 and 5 slightly shorter, pereonite 6 shortest, 0.8 times as long as pereonite 1 (all pereonites respectively 2.2, 2.3, 1.8, 2.0, 2.0 and 2.5 times as wide as long). Pleon twice as long as pereonite 5, of 5 free subequal pleonites bearing pleopods plus pleotelson; pleonites some 9 times as wide as long, not laterally expanded, with paired

dorsolateral and lateral setae. Pleotelson 0.75 times as long as wide, as long as pereonite 5, with single midlateral, subdistal and distal marginal setae on each side, and pair of mid-dorsolateral setae.

Antennule peduncle article 1 stout, 3 times as long as wide, with conspicuous denticulations along inner and outer margins, outer margin with longer subdistal seta and groups of proximal, mesial and distal penicillate setae; inner margin with 2 simple setae in distal one-third; peduncle article 2 0.3 times as long as article 1, with inner proximal denticulations, inner, dorsal and outer distal setae, and outer distal group of penicillate setae; article 3 one-quarter length of article 1, article 4 one-fifth as long as 2nd, with inner distal seta. Main flagellum of 2 segments, proximal segment with 3 simple distal setae, distal segment with 2 longer distal setae, 1 shorter subdistal seta and 2 aesthetascs; accessory flagellum of 2 segments.

Antenna peduncle article 1 with denticulate inner margin; article 2 distally denticulate on inner margin, naked, 0.7 times length of article 1; peduncle article 3 as long as article 2, with 1 inner distal penicillate seta; article 4 just longer than article 3, with 2 distal penicillate setae. Flagellum of 2 segments, distal segment with 2 shorter and 1 longer distal setae. Squama absent.

Mouth parts. Labrum not seen. Left mandible with narrow crenulated pars incisiva, lacinia mobilis as long as pars incisiva and distally crenulate, setiferous lobe with 4 simple setae, pars molaris elongate, stout, blunt with spinose extension at dorsal rim; mandibular palp of 3 articles, article 1 naked, article 2 as long as article 1 with dorsodistal seta, article 3 half as long as article 2 with 3 shorter and 1 longer distal setae, the longer as long as article 2. Right mandible as left. Maxillule inner endite with 4 setulate distal setae; outer endite with 9 distal spines, 2 shorter than the rest, outer margin finely setose; palp of 2 articles, article 2 one-third length of 1st and with 2 distal setae. Maxilla outer lobe of moveable endite with 2 subdistal and 4 distal simple setae; inner lobe of moveable endite distally with 7 simple setae; outer lobe of fixed endite distally with 3 simple outer setae and 3 trifurcate inner setae, subdistally with setulose seta; inner lobe of fixed endite with rostral row of 13 setae guarding 2 longer plumose setae. Labium with denticulate outer margin, palp elongate, with paired outer setae, fine distal setules and single distal spine. Maxilliped basis with simple inner distal seta; palp article 1 with outer distal spine on apophysis and single inner distal setulose seta; palp article 2 longer than wide, with sparse row of 6 simple and 2 setulose setae on inner margin, stout outer distal seta; palp article 3 0.6 times as long as wide, with 4 simple stout setae on inner distal margin; palp article 4 with 7 distally-denticulate distal setae. Endite with setulose distal and outer marginal setae, inner margin with fine setules, and 4 coupling hooks. Epignath elongate cup-shaped, with setulose distal spine.

Cheliped robust, basis as long as wide with small ventrodistal seta; exopodite absent. Merus subrectangular, ventrodistal shoulder with single seta. Carpus twice as long as wide, with simple dorsodistal seta, midventrally with paired simple setae among slight marginal crenulations. Chela fingers shorter than palm; palm with paired distal setae at articulation of dactylus; fixed finger with 3 ventral setae, cutting edge with sparse setae; dactylus with 3 distal setae, distal claw pointed.

Pereopods generally all somewhat similar.

Pereopod 1 basis compact, 2.7 times as long as wide, with simple setae and 2 triangular apophyses along dorsal margin, 2 fine setae on ventral margin; exopodite absent. Ischium naked. Merus 0.4 times as long as basis, with long inner distal seta and 1 outer distal spine. Carpus 0.8 times as long as merus, with 3 ventral spines, 2 dorsodistal spines and 3 distal simple setae. Propodus as long as merus, with 4 ventral spines, 2 stout dorsodistal spines, dorsodistal and ventrodistal simple setae, and mid-dorsal penicillate seta. Dactylus stout, with fine midventral denticulation; unguis short, slender, one-third length of dactylus.

Pereopod 2 similar to but more slender than pereopod 1, basis 3 times as long as wide, dorsally with single triangular apophysis, ischium with single ventrodistal seta, merus with single ventrodistal and dorsodistal setae, carpus with 5 ventral short spines in 2 rows, and 2 mid-distal short spines; propodus 2.3 times as long as wide, with 4 ventral, 1 mesial and 2 dorsodistal short spines, and 2 fine dorsal and 1 longer dorsodistal setae; dactylus with ventral seta; unguis stout.

Pereopod 3 similar to pereopod 2, but dorsal margin of basis with 2 apophyses; merus dorsodistally naked.

Pereopod 4 similar to pereopod 2, but propodus with mid-dorsal penicillate seta, and dorsodistal tuft of 2 simple and 5 finely denticulate setae, more conspicuous "heel" on dactylus.

Pereopod 5 as pereopod 2 but with dorsodistal spine on merus, fewer spines on carpus and propodus, more conspicuous "heel" on dactylus.

Pereopod 6 similar to pereopod 5, but carpus without spines but with 4 distal simple setae, propodus with distal tuft of 8 finely denticulate setae.

Pleopods all alike. Basis naked, both rami slender, subequal in length, with 2 (exopod) or 3 (endopod) distal setae.

Uropod basis elongate, with 1 longer and 1 shorter outer distal setae. Exopod of 2 segments, endopod of 4 segments, setose as figured.

Male. Generally as female, body shorter (4.6 times as long as wide). Cheliped dimorphic, proportionately larger, carpus 1.6 times as long as wide, chela nearly twice as long as carpus, propodal palm 1.45 times as long as wide, fixed finger excavate to give wide separation from dactylus, cutting edge distally denticulate and setulose; dactylus longer than carpus. Cheliped of subadult male transitional, dactylus cutting edge with proximal rounded apophysis.

Etymology. Named for Dr Robin Wilson of Museum Victoria, who undertook much of the Bass Strait sampling.

Remarks. The only genus of the Metapseudinae without an antennal squama is *Metapseudes*; this genus is further distinguished from the others in having a simply setose trunk, no plumose setae on the basis of pereopod 1, and a simple rostrum. The only species previously known from this genus is *M. aucklandiae* Stephensen, 1927, described from New Zealand in shallow waters (Stephensen, 1927), and usefully redescribed from the type and other material by Gardiner (1973) (depth range 0–113 m). The 2 species have similar lateral dentition of the basal 2 articles of the antennule, rostrum, trunk setation, mouthpart morphology, pleopod and uropod morphology, no exopodites on the cheliped or pereopod 1 and, of course, no antennal squama.

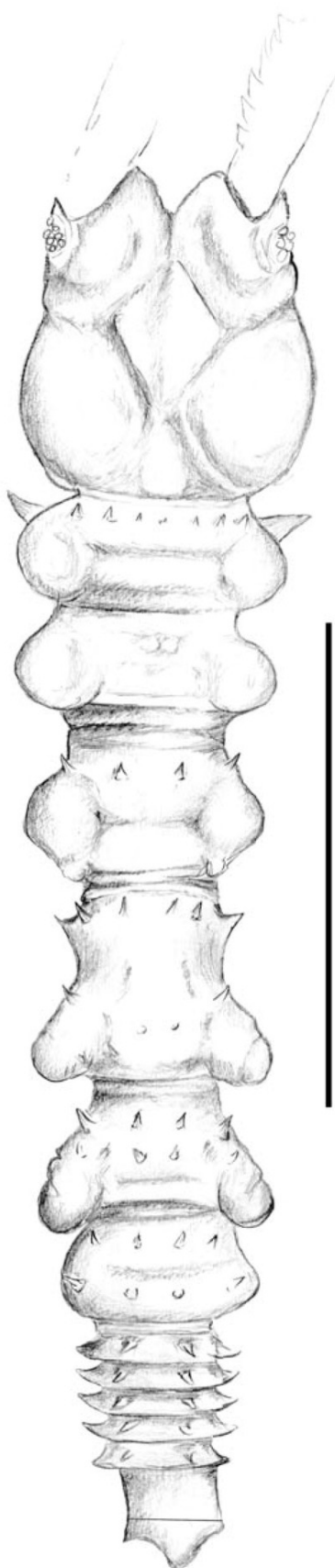


Figure 24. *Similipedia diarris* sp. nov., holotype female, dorsal. Scale line = 1mm.

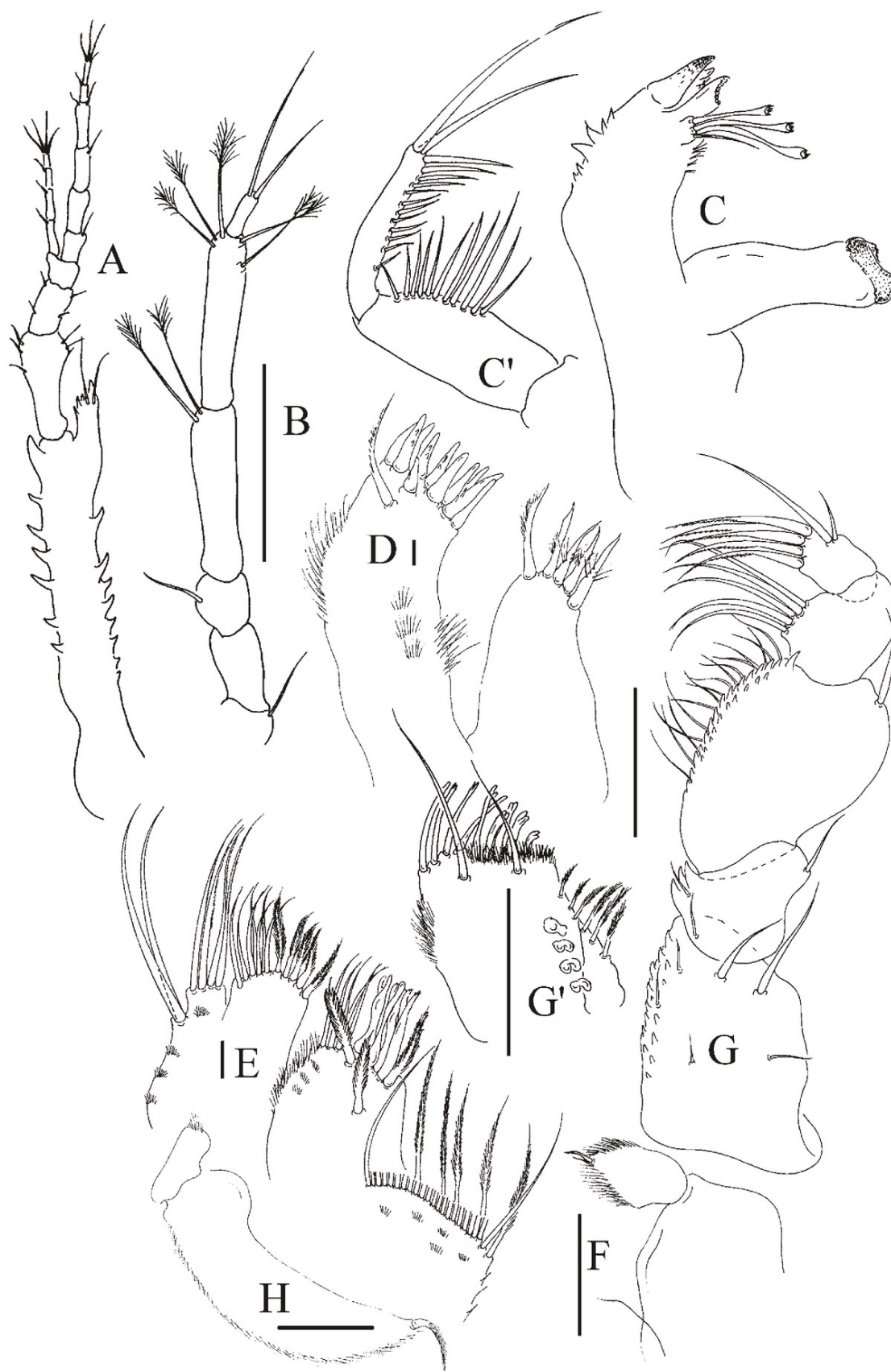


Figure 25. *Similipedia diarris* sp. nov., A, antennule; B, antenna; C, left mandible; D, maxillule; E, maxilla; F, labium; G, maxilliped; G' maxilliped endite; H epignath. Scale line = 0.1 mm.

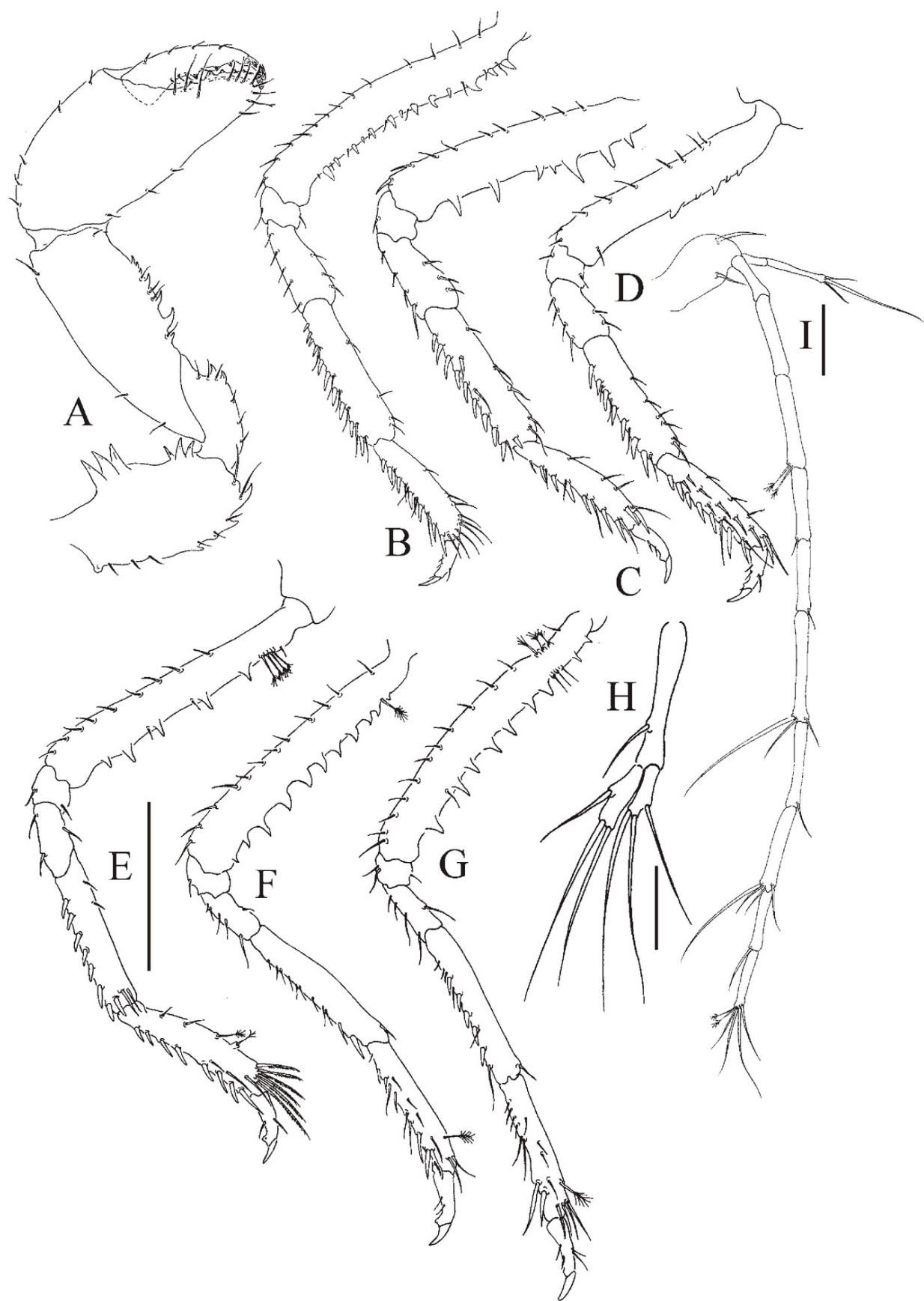


Figure 26. *Similipedia diarris* sp. nov., A, cheliped; B to G, pereopods 1 to 6 respectively; H, uropod; I, uropod. Scale line = 0.1 mm.

The most evident difference between these species is that *Metapseudes wilsoni* sp. nov. has conspicuously more slender antennules and antennae (proximal antennule peduncle article of *M. aucklandiae* 1.6 times as long as wide) with more pronounced, pointed denticulations on the proximal antennule peduncle article, and 1 fewer article in the main flagellum of the antennule (Stephensen, 1927, erroneously showed the 4th peduncle article split as 2 basal flagellar articles), but also 2 (rather than 1) distal setae on the maxillule palp, no indentation in the anterior margin of the rostrum, a more slender cheliped in the female (carpus of *M. aucklandiae* 1.7 times as long as wide), fewer dorsal apophyses on the pereopod bases, and a more slender pereopod 2 (propodus of *M. aucklandiae* about 1.2 times as long as wide).

Family **Pagurapseudidae** Lang 1970

Genus *Similipedia* Guțu 1989

Similipedia diarris sp. nov.

Figures 24–26

Material. Female, holotype (NMV J47126), Australia, Victoria, eastern Bass Strait, 8 km S of South East Point, Wilsons Promontory (39°12.54'S, 146°27.18'E), 65 m, 18/11/1981, (BSS 180 S), R.S. Wilson. Paratypes: 42 females (7 brooding), same locality as holotype; paratypes (NVM J55752), 2 dissected on slides (NMV J55938), same locality as holotype.

Description of female. Body dorsoventrally flattened, holotype 3.2 mm long (tip of rostrum to posterior of pleotelson), 5.3 times as long as wide, narrower posteriorly. Cephalothorax subrectangular, slightly longer than wide, naked, swollen around branchial chambers; anterior margin with conspicuous v-shaped rostral excavation. Eyes present; eyelobes with apophyses directed anterolaterally. 6 free pereonites; pereonites 1 and 2 subequal, about one-third as long as cephalothorax, lateral margins uniformly convex; pereonite 1 with anterodorsal row of 7 spiniform apophyses. Pereonite 3 1.5 times as long as pereonite 1, with 4 anterodorsal spiniform apophyses, lateral pair appearing as anterolateral apophyses; pereonite 4 longest, 1.7 times as long as pereonite 1, with 4 anterodorsal spiniform apophyses, anterolateral spiniform apophyses, mid-lateral spiniform apophyses anterior to conspicuous posterolateral swelling over coxal attachment; pereonite 5 just longer than pereonite 1, with anterodorsal and mid-dorsal rows of spiniform apophyses and expanded posterolaterally at attachment of coxae; pereonite 6 as long as pereonite 1, laterally uniformly convex with anterodorsal and mid-dorsal rows of spiniform apophyses (all pereonites respectively 2.4, 2.3, 1.6, 1.2, 1.9 and 1.8 times as wide as long). Pleon twice as long as pereonite 5, of 5 free subequal pleonites bearing pleopods plus pleotelson; pleonites dorsally convex, some 6 times as wide as long, laterally expanded by spiniform apophyses and with paired mid-dorsal spines. Pleotelson as long as wide, as long as pleonites 2 to 5 inclusive, naked.

Antennule peduncle article 1 elongate, 6.7 times as long as wide, with conspicuous inner and outer spine-like marginal apophyses, distally with inner tooth-like apophysis and larger

outer denticulate apophysis, as long as peduncle article 3 and bearing 2 setae; article 2 0.3 times as long as article 1, with distal expansion bearing 3 inner and 3 outer setae; article 3 three-quarters length of 2nd, article 4 one-third as long as 3rd, naked. Main flagellum of 6 segments, sparsely setose as figured; accessory flagellum of 4 segments.

Antenna peduncle article 1 simple with outer seta; article 2 naked, without squama; peduncle article 3 as long as wide, with 1 seta; articles 4 and 5 of equal length, and 3.3 times as long as article 3, each with distal penicillate setae. Flagellum of 1 segment with 2 distal setae.

Mouth parts. Labrum sparsely setose. Left mandible with distal outer margin bearing group of spinous apophyses; strong, bifurcate, crenulated pars incisiva, lacinia mobilis as long as pars incisiva, setiferous lobe with 1 simple and 3 longer, distally expanded and setulose setae, pars molaris elongate, blunt; mandibular palp of 3 articles, article 1 naked, article 2 twice as long as wide with inner row of 11 simple setae in distal half, article 3 as long as article 2 but more slender, 5 times as long as wide, with 12 inner simple setae increasing in length distally, and 2 longer distal setae, the longer 1.3 times as long as article. Right mandible as left but without lacinia mobilis. Maxillule inner endite with 5 midlaterally-setulate distal setae and outer marginal apophysis; outer endite with 11 distal spines, 1 shorter than the rest, outer margin finely setose, inner margin with microtrichia; palp absent. Maxilla with microtrichia on outer margin; outer lobe of moveable endite with 2 simple setae on outer margin and 4 simple distal setae; inner lobe of moveable endite distally with 7 simple outer and 5 plumose inner setae; outer lobe of fixed endite with marginal microtrichia, distally with 6 outer simple setae, 5 stouter blunt or bifurcate spines, and inner plumose seta; inner lobe of fixed endite with rostral row of 22 setae guarding 5 longer plumose setae, inner margin finely denticulate. Labium glabrous, palp marginally densely setose with single distal spine. Maxilliped basis with tuberculate inner margin, sparse short setae and 2 mid-distal setae; palp article 1 with single distal seta on outer margin, paired inner setae and 3 sharp denticulations on inner margin; palp article 2 longer than wide, with rows of numerous short tooth-like tuberculations on inner margin adjacent to row of small, simple setae, outer margin with 1 simple seta subdistally; palp article 3 as long as wide, with 5 simple setae on expanded inner margin; palp article 4 with 5 distally denticulate distal setae, and 1 longer and 1 shorter simple subdistal setae. Endite with simple, flagellate inner and outer caudodistal setae, blunt bifurcate or spatulate, distal spines, margin of dense fine distal setules and 4 coupling hooks. Epignath slender, marginally densely setose, with prominent proximal lobe and setose distal spine.

Cheliped robust, basis twice as long as wide, dorsally with central and distal groups of 3 spine-like apophyses, ventrally with small marginal setae, paired ventrodistal setae and 4 denticulations along the distal half; exopodite absent. Merus subrectangular, ventrally and distally with sparse setae, ventrodistal shoulder with 2 spine-like apophyses. Carpus 2.4 times as long as wide, with small, simple setae proximally and distally on dorsal margin, ventrally with spine-like apophyses becoming smaller distally and sparse simple setae. Chela

fingers shorter than palm; palm with sparse ventral (3) and dorsal (5) setae, fixed finger with 4 ventral and 4 dorsodistal setae around distinct distal claw, 3 setae near articulation of dactylus; cutting edge of fixed finger crenulate; dactylus with fine dorsal setae, proximal setae and distal apophyses on cutting edge, distal claw pointed.

Pereopods generally all similar.

Pereopod 1 coxa with spinous apophysis; basis slender, 6.4 times as long as wide, with simple setae along both margins and row of 12 spines along dorsal margin; exopodite absent. Ischium with single, simple ventrodiscal and dorsodistal setae. Merus 0.3 times as long as basis, with rows of simple dorsal and ventral setae as figured. Carpus 1.8 times as long as merus, with sparse dorsal marginal setae, ventral margin with 10 spines interspersed with fine simple setae. Propodus shorter than carpus, 1.5 times as long as merus, with dorsodistal and distal simple setae, ventral margin with 7 spines interspersed with fine simple setae. Dactylus slender, one-third length of propodus, with fine inner and outer setae and slight ventrodiscal expansion adjacent to unguis; unguis short, slender, half length of dactylus.

Pereopod 2 similar to pereopod 1, but basis 5.4 times as long as wide, dorsally with row of 7 unequal spine-like apophyses and no setae. Ventrodiscal swelling on dactylus larger.

Pereopod 3 similar to pereopod 2, but dorsal margin of basis with fewer, smaller apophyses; propodus with mesial row of 5 setae.

Pereopod 4 similar to pereopod 2 but basis with dorsoproximal tuft of penicillate setae; merus half as long as subequal carpus or propodus; propodus with mid-dorsal penicillate seta, dorsodistal tuft of 6 finely denticulate setae; ventrodiscal swelling on dactylus more pronounced.

Pereopod 5 as pereopod 4 but with only single penicillate seta on basis, mesial setae but only 2 simple distal setae on propodus.

Pereopod 6 similar to pereopod 5.

Pleopods all alike. Basis elongate, with single dorsal seta. Both rami slender, with 2 distal and 1 subdistal setae; endopod shorter than exopod.

Uropod basis with paired distal setae, endopod of 10 slender segments, exopod of 2 segments shorter than proximal 2 segments of endopod.

Etymology. From the Greek “*dia*” – asunder, and “*rhis*” – a snout, referring to the cleft rostral margin of the cephalon (noun in apposition).

Remarks. Within the subfamily Hodometricinae, only 3 genera, viz. *Pagurapseudopsis* Shiino, 1963, *Parapagurapseudopsis* Silva Brum, 1974 (including *Brumia* Băcescu, 1981), and *Similipedia* Guțu, 1989 have a full 5 pairs of pleopods in the adult. Of these 3, *Pagurapseudopsis* is distinct in having an exopodite on pereopod 1, and the basis of this pereopod is substantially larger than that of the remaining legs; *Parapagurapseudopsis* has an exopodite on the cheliped (rudiment only in *Pagurapseudopsis*); both of these genera have a palp on the maxillule. With no maxillule palp, pereopod 1 of similar morphology to the remaining pereopods, and exopodites missing from both the cheliped and pereopod 1, the present species accords with *Similipedia*.

The only previously described species of *Similipedia* is *S. eminescui* Guțu, 1989, from the north-east Mozambique Channel at 6 m depth, to which much of the morphology of *S. diarris* sp. nov. (habitus, rostral concavity, antennular basis apophyses, pereopod and pleopod structure, ventrodiscal swelling on the pereopod dactyli) is very similar. The present species is distinguished from *S. eminescui* by having no squama on the antenna (very reduced squama evident in *S. eminescui*), no rostrum (small eminence in the centre of the rostral concavity in *S. eminescui*), dorsal spiniform apophyses on the pereonites (only setae in *S. eminescui*), more segments in the antennular flagella, 1 less segment in the antennal flagellum, more slender mandibular palp articles, and the more elaborate outer distal apophysis on the proximal antennule peduncle article.

None of the specimens of *Similipedia eminescui* had retained their chelipeds, so the description of the cheliped from *S. diarris* adds to our knowledge of this genus, particularly that the cheliped exopodite is absent. Guțu (1989) also gave no description of the maxilla of his species.

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OIF 040613-DiPoT.

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